TiP

The Industrial-Organizational Psychologist

Page

A Message From Your President

Milt Hakel

We're moving ahead. The program year is nearly half gone, and there's progress to report on many fronts. Here are just a few highlights:

- An unprecedented number of Society members are serving on standing, ad hoc and APA committees this year (see the list in this issue). Over 100 members have written to **Larry Cummings** volunteering for next year.

- **Ray Katzell** reports that Jossey-Bass will publish *Frontiers in Industrial and Organizational Psychology,* and that volume editors and contributors are now being identified.

- Our first midyear conference will be held in 1986, and Chicago and New York are leading site contenders. **Irv Goldstein** notes that advance bookings for 1985 make the earlier date impossible (see the Committees column in this issue).

- Selection of an office site and hiring of an administrative assistant for the Society got a big boost when SOHIO's "temporary" (1 and 1/4 year) support for the Secretary-Treasurer ended in December. **Gini Boehm** coped heroically under less than ideal circumstances while **Shelly Zedeck** arranged plans for review by the Executive Committee.

- "Psychology and Work" was selected as the theme for the 1985 APA Master Lecture Series, and the Society nominated many members as speakers.

On the election front, the good news is that we did it again! The Society will have five seats on the 1985 Council. The bad news is that we missed our goal of adding a sixth seat. It was a good try and we fell .49% short. More good news on APA elections: **Don Grant** has been elected to the Committee on Scientific and Professional Ethics and Conduct, **Kitty Katzell** to the Policy and Planning Board, **Ann Howard** to the Committee on Employment and Human Resources, and **Bob Ramos** to the Board of Ethnic Minority Affairs.

More On Scientists and Practitioners

This is the issue: Do we have enough exchange between Scientists and Practitioners? The comments, phone calls, and mail since the last issue of **TIP** have been unanimous: We are divided, not between industrial and organizational specialties, but between science and practice. And in the view of **Bill Jennings**, the gap is widening. Bill wrote:

> I have great respect for the AT&Ts, IBMs and others who support substantial colonies of behavioral scientists. Much of the good research reported in the APA sessions I attended at Anaheim came from such an enclave. Even the "good" stuff often struck me as impractical or impossible for smaller, more constrained settings. I heard a fellow practitioner characterize the whole convention as the "Annual meeting of the Validity Generalization--Utility Theory Mutual Admiration Society." When you work in a satisficing world, statistical sophistication and elegance are rare indeed. The same methodological rigor that impresses scientists often intimidates or nonplusses practitioners (let alone operating managers). Can you imagine a paper entitled, "How I made the most of a screwed-up validation study because the company had too much money invested to write it off", or "Capitalizing on bad research (*In Search of Excellence* ?) to achieve desired organizational outcomes"? The upshot of all this is that many practitioners must choose between sub-optimal application of behavioral science techniques and no application at all. Scientists, for the most part, take a dim view of half-science.

The tension between science and practice has concerned me for years, especially since becoming editor of *Personnel Psychology* a decade ago. It is a tough dilemma. Pursuit of scientific rigor as the ultimate criterion has its drawbacks, as eloquently noted by Nobel Economics Laureate Wassily Leontief (1982), "Year after year economic theorists continue to produce scores of mathematical models and to explore in great detail their formal properties; and the econometricians fit algebraic functions of all possible shapes to essentially the same sets of data without being able to advance, in any perceptible way, a systematic understanding of the structure and the operations of a real economic system."

And on the other hand, practical relevance as the ultimate criterion gets us nowhere either. I have been assured by many practitioners that there are thousands of file drawers out there, brimming with data, just waiting for someone with enough time to analyze their content and to write them up--the findings would *really* advance practice. Yet the conceptual flaws, design flaws, and measurement flaws are so serious in many such "studies" that there is nothing that could be learned. I can't imagine papers on "How to make the most of a screwed-up validation study" or "Capitalizing on bad research", yet I suspect most of us have done both. Bill admits to it, and so do I.

But we are not consigned to a future of making unhappy tradeoffs between rigor and relevance. We need not choose one or the other--the dilemma is false.

One of the fun things that comes with the presidency is a guaranteed slot on the convention program. I plan to use mine to celebrate what we're doing right in applied psychology. I want to

illustrate several examples of good science gleaned from practice and good practice based on science, and I would like your help: Write or call with your nominations of R & R (Rigor and Relevence) projects, published or unpublished, foreign or domestic, old or new.

In the meantime, keep passing on your suggestions for what we can do to build a better Society.

Reference
Leontief, Wassily (1982). Academic Economics. *Science,* 217, 104-107.

TIP BITS

Ann Howard

This may be the winter of our discontent, for we seem to be spending our hibernation time contemplating some of the things we could do better. Our first feature in this issue discusses failures of implementation. First, **John Miner**, based on a thorough study of theories in the field, explores which theories have led to useful applications, which have not, and some possible reasons for failures in this regard. His discussion is reminiscent of President Milt Hakel's concern with rigor and relevance. **Richard Guzzo**, attending the White House Conference on Productivity as the Society's representative, also notes that we are not having the impact we might on an issue of important national concern -- productivity. Note in Wally Borman's Scientific Affairs Committee report that these issues are not going unnoticed by the Society.

Gary Kaufman continues the implementation failure theme with a frank discussion of how new graduates and interns sometimes "miss" in lending their skills to applied settings. Also addressing the theme of verbal miscommunications, **Rich Klimoski**, in an Andy Rooney style, reflects on multiple meanings of our dimensions, especially as used in performance appraisals.

There are new challenges for I/O psychologists as well as the old that are documented in other features in this issue. **John Hinrichs** explores the topic of videodiscs and some of the potentialities of working in a high tech world. The AT&T psychologists, riding the rough seas of the largest corporate breakup ever, face new roles, new clientele, and a new world, as described by **Manny London**. The world of 1984 and beyond may not reflect the dire predictions of the novel, but it certainly offers massive technological changes.

NEWS AND NOTES . . .

TIP was informed too late for the last issue that **Lyman Porter** won an Academy of Management Award for Scholarly Contributions to Management. He was recognized for outstanding contributions to our understanding of behavior in organizations and for uniting organizational psychology with traditional management reasoning.

Society members continue to score promotions. **Dov Eden** has assumed the chairmanship of the Graduate OB Program at the Faculty of Management at Tel Aviv University. **Olga E. Engelhardt** was appointed Dean of the College of Business and Management at Northeastern Illinois University. **Joseph A. Sgro** is now Head of the Department of Psychology at Virginia Polytechnic Institute and State University.

Outside of academia, **Victor R. Tom** was elected Vice President of Personnel Administration at Blue Shield of California. He will be responsible for implementing Blue Shield's personnel policies and practices for 2200 employees in the company's 17 offices throughout the state. **John Arnold** was promoted to Manager, Human Resources Consulting within Arthur Young & Company. He also recently made a move from Cincinnati to their Detroit office.

Yong H. Sung has moved from his position of Director of the Ball Foundation to George J. Ball, Inc., of West Chicago, Ill., as Director of Corporate Human Resources. The Ball Foundation directorship has been assumed by **Stephen M. Colarelli**. Among the applied research projects underway at the Ball Foundation is a collaborative longitudinal study with **Roger Dean** and **Constantine Konstans** of Southern Methodist University to examine the effects of new accountants' aptitudes and job expectations on job performance, turnover, and satisfaction.

Among some new appointments, **Maureen M. Kaley** has joined Lopez & Associates as Senior Vice-President of Product and Services Development. **Alphonse Chapanis** has joined the faculty at George Mason University as distinguished adjunct professor assisting the Psychology Department in implementing the second year of its PsyD program in applied experimental and industrial-organizational psychology.

The Michigan Association of Industrial-Organizational Psychologists (MAIOP) elected several Society members as officers for 1983-84. The President-Elect is **Mark L. Lifter**, Secretary-Treasurer is **Barbara Lachar**, and **Liz Barclay** is

Member-at-Large. Other officers include **Richard Clingenpeel** as the current President, **Bill Roskind** - Past President, and **David Jones** and **Jeff Walsh** as Members-at-Large.

John Hinrichs at Management Decision Systems reports that a number of members have affiliated into a consulting network called MDS Consulting Associates. The group, supported by MDS, will undertake consulting assignments in all areas of human resource management. Charter members of the group are **Mike Beer**, Harvard; **Larry Cummings**, Northwestern; **John Hinrichs**, MDS; **Geert Hofstede**, IRIC, the Netherlands; **Jack Ivancevich**, Houston; **Ray Katzell**, NYU; **Gary Latham**, Washington; **Bill Mobley**, Texas A&M; and **Lyman Porter**, U CAL, Irvine.

NOTICE: TIP OFFICES MOVE—AGAIN

For the second time during the administration of this Editorial Board, the **TIP** offices have relocated.

- **Why?**   Read the section on organizational changes at AT&T
- **Where?** See the inside cover -- while munching a Big Apple.

FAILURES OF IMPLEMENTATION

Our theories are elegant and our graduate training sublime, or so we like to think. But the translation of ideas and skills into useful applications for industry and other applied settings often eludes us. The hyphen that should join the practitioner to the scientist is somehow misdirected; an arrow shot straight up in the air or never shot at all.

In this feature section, three I/O psychologists offer different perspectives on our failures to implement what we develop. John Miner tries to cross the mountains from theory to application and finds the road poorly surfaced or leading nowhere. Richard Guzzo attends a national conference on productivity and finds I/O's influence sadly lacking in a field that should be rife with our ideas and research findings. Gary Kaufman observes new graduates and interns stumbling over their communications, their values, and even such basic skills as the use of random sampling. TIP offers these essays of disappointments not unkindly, for the recognition of our shortcomings is the first step in rectifying them.

THE UNPAVED ROAD OVER THE MOUNTAINS
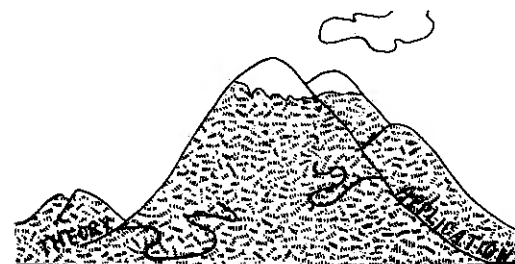
FROM THEORY TO APPLICATIONS

By JOHN B. MINER

A number of years ago Kurt Lewin evoked what has become a dictum, "nothing is as practical as a good theory". If "practical" is taken to mean that which is useful in an applied setting to achieve some goal, and "good theory" refers to theory that produces valid knowledge, then Lewin's statement becomes a testable hypothesis. It will be so treated here with data to test it from the field of organizational science.

Of the 32 theories analyzed, 24 were taken from a 1977 survey of knowledgeable scholars who were asked to nominate the most

important theories from the standpoints of usefulness and validity, and 8 were added by the author, who has written two books on major theories of the field. The theories fell into four domains: motivation, leadership/supervision, organization development, and structuring. The first two are micro theories of organizational behavior and the latter two macro in nature. These theories will be described first within categories of usefulness. They will next be compared relative to scientific validity and to field of professional degree of the primary theorists.

John B. Miner

A rating of usefulness was made by the author to reflect verified successful application. The rating did not reflect how widespread the applications are but only if they have occurred and have been shown by research to produce the results predicted. A high rating (useful knowledge theory) was given if applications had been generated and at least some met the applied research test. A questionable rating (question mark theory) was given if there was some doubt regarding either the degree to which the applications derive from the theory, the amount of research support, or the appropriateness of the research conducted. A low rating (not-so-useful theory) was given either because applications were not generated or because those that were generated had proved essentially useless. The theories will be considered within each rating category by domain of theory formulation. Primary theorists associated with each theory are indicated in brackets.

Theories of Motivation in Organizations

Useful Knowledge Theories

1. Job Characteristics Theory [J. Richard Hackman] is less a theory spawning an application than a theory of the application itself: job enrichment. The theory specifies when job enrichment is likely to work and when it is not, and measures have been developed to apply these concepts in practice. Its predictions appear to be close to target; although job enrichment programs often fail, job characteristics theory would anticipate these failures if the employees and procedures used were not those advocated.

2. Behavior modification [B. F. Skinner] in its organizational applications does not always follow Skinner's theory of operant learning closely but has evolved through the efforts of many, including those giving specific details of applications [W. Clay Hamner, Fred Luthans, Arnold P. Goldstein, Melvin Sorcher]. Although there is some reason to believe other theoretical positions might better predict the research outcomes, it has produced useful knowledge.

3. Goal-setting theory [Edwin A. Locke], when applied to superior-subordinate relationships, results in the subordinate accepting specific, difficult performance goals. Applications in a variety of organizational contexts have produced impressive results, but whether a true motivational theory underlies these results or just motivational technique is uncertain. The theory has also been used to explain the effects of other applications rather than to generate them, as in Management by Objectives (MBO). In practice MBO doesn't work very well, tends to lose what effects it does have rather quickly, and frequently incorporates a whole bag of techniques of which goal setting is only one.

4. Achievement motivation theory [David C. McClelland] regarding performance in positions of an extrepreneurial nature has generated achievement motivation training, which has effectively stimulated entrepreneurial activity in a variety of settings. An expanded definition of the theory includes power and affiliation motivations as well, and a training program to develop socialized power motivation for managers has shown some evidence of effectiveness, though less than for achievement motivation training.

5. Role motivation theory [John B. Miner] has a set of theories for different organizational systems, but the best developed is managerial role motivation theory. A considerable body of research supports the effectiveness of a corresponding management development program intended to stimulate higher levels of managerial motivation.

Question Mark Theories

6. Expectancy theories [Victor H. Vroom, Lyman W. Porter, Edward E. Lawler] appear to work only in highly rationalized organizational contexts, but within those contexts it works well. The problem is that most proponents of expectancy theory, in its various versions, have given little attention to applications. An exception to this anti-application orientation has been the work on pay and compensation, primarily by Lawler. However, applications such as cafeteria benefit plans (permitting selection of benefits by individual valences and expectancies) and open pay policies (to permit perception of existing contingencies) have met considerable

resistance from both practitioners and scholars, preventing establishment of useful knowledge.

7. Motivation-hygiene theory [Frederick Herzberg] has suffered from a continuing series of attacks of both a logical and empirical nature to the point where its validity must be seriously questioned as well as use of these ideas as managerial working hypotheses. Orthodox job enrichment is said to have been stimulated by the theory, but job characteristics theory appears to provide a more comprehensive and precise understanding of the same phenomena. Moreover, orthodox job enrichment emphasizes motivators only, not hygienes, so is concerned with only half of the theory at best.

Not-So-Useful Theories

8. Need hierarchy theory [Abraham H. Maslow] was accepted for many years on faith but its validity is in doubt. Except for the prepotency of certain needs at the very lowest level, the idea of a fixed, biologically rooted need hierarchy for all mankind is highly unlikely. The only specific approach generated by the theory is a type of sensitivity training focusing on development of self-actualization and growth needs, but it was ineffective and is no longer viable as an application.

9. Equity theory [J. Stacy Adams] has stood the test of research well, but it has never moved beyond a laboratory-type setting or been brought to a specific application.

Comments on Motivation Theories

Useful motivation theories have dealt with a limited domain that is not far removed from the application itself. They are specific theories of organizational behavior and technique. The road from theory to application may be paved, but it is short and moves over rolling hills rather than precipitous mountains.

Theories of Leadership and Supervision

The leadership concept arose out of group dynamics and assumes no more than an isolated group, while supervision assumes a hierarchic flow of power or authority in an organizational context. Irrespective of which type of theory is involved, sound applications have not been a frequent outgrowth, and the field has suffered from its long-term domination by a group dynamics paradigm.

Question Mark Theories

10. Contingency theory of leadership [Fred E. Fiedler] advocates situational engineering whereby leader-member relations, task structure, and position are adjusted to yield an optimum fit with the individual. Training in the leader match concept teaches how to engineer one's own situation appropriately, and research has shown it is often effective in producing change. However, certain problems put the theory in the question mark category; namely, the instability of the Least Preferred Co-Worker personality dimensions, unequal performance levels across the octants created by combinations of contingency variables (so that lower rather than higher productivity might be engineered), research support for only half the theoretical octants at best, and questionable attribution of situation engineering as the cause of performance change in the absence of anticipated learning.

11. Theory X and Theory Y [Douglas McGregor] advocates a management style based on theory Y assumptions. Its proposed applications do not derive from the theory but are consistent with the theory's hypotheses, such as psychotherapy for managers, sensitivity training, team building, job enlargement, and the Scanlon Plan. Goal setting within the management appraisal context (like MBO) did derive from the theory, although the emphasis was on a highly participative approach to goal-setting and cannot claim successes of MBO using assigned goals. Other problems are that it is predicated on the validity of need hierarchy concepts, now highly questionable; it advocates an advisory or consultant relationship with subordinates, which is inappropriate for bureaucratic systems; and the theory has a stereotyped one "best way" to management, which unrealistically ignores individual differences among subordinates.

12. Decision-tree theory of participative leadership [Victor H. Vroom] spells out what styles of leadership are preferable under different situations. It represents a major advance from the viewpoint of theoretical elegance and specificity of application guidelines, but neither the normative approach to style choices nor the training program has been effectively validated as yet.

13. Influence-power continuum theory [Frank A. Heller] specifies conditions under which upper level managers will and will not share decisions. It takes the position that power-sharing methods are to be preferred since they utilize more of the existing reservoir of skills in the organization and hence contribute to increased performance. The theory cannot be said to have created useful knowledge as yet, but the promise is there.

Not-So-Useful Theories

14. Path-goal theory [Robert J. House, Martin G. Evans]

appeared in the early years to offer the prospect of producing useful contributions to practice, but to date has been even less successful in this regard than its parent, expectancy theory.

15. Leadership pattern choice theory [Robert Tannenbaum, Warren H. Schmidt] provides an inventory of managerial, subordinate, and situational factors that may condition decision-sharing, but it lacks the precision needed for direct application, a fact that prompted Vroom and Yetton to construct their decision-tree theory of participation.

16. Vertical dyad linkage theory [George Graen] represents a reaction against the tendency to consider leader behaviors as averages that apply to all subordinates, such as in Theory Y and consideration and initiating structure concepts. It is a descriptive theory which has not been extended to applications.

Comments on Leadership/Supervision Theories

The lack of clearly successful applications in Leadership/Supervision theories suggests they may not be able to stand alone and produce useful knowledge; perhaps some formulation regarding the effects of different organizational contexts and systems needs to be built into the theories on one end and some motivational constructs on the other to make the formulations more specific and circumscribed. Another point is that although a number of theories have generated training procedures that produce definite changes in those exposed to them, in many instances it is not at all clear exactly how the changes are brought about. One possibility is that the training stimulates interest in and knowledge of a role the person is predisposed toward in any event, resulting in motivational and behavioral changes.

Organization Development Theories

Theories of this type contain constructs dealing with structures and process above and beyond the single work group and emphasize humanistic values and/or group processes.

Useful Knowledge Theories

17. Theory of System 4 and 4T [Rensis Likert] has produced applications designed to assist in moving an organization from more authoritative structures and processes to participative ones. Cross-functional teams and management by group objectives (an elaboration of MBO) have received little attention and have not been researched adequately. Human resource accounting, designed as a method of preventing managers from squandering human assets through the use of authoritative methods, has received much more attention, but evaluation research has been minimal and adoptions sparse. The survey feedback approach has been researched and has been shown to move organizations toward System 4 and also to greater effectiveness. However, it is limited by being a "best way" approach with the emphasis on participative processes, which does not always yield the more positive outcomes. Neither does survey feedback always work.

18. Sociotechnical system theory [Eric L. Trist] is to some extent the European counterpart to System 4 and 4T. The essential application is the introduction of autonomous or self-managing work groups (although the theory would call for other organizational forms), an application which sometimes has worked but has also recorded major failures.

Question Mark Theories

19. The contingency theory of organization [Paul R. Lawrence, Jay W. Lorsch] has produced a particular approach to organization development and endorsed another, matrix structure. In both cases research support for the application is practically nonexistent. Research has also challenged the validity of the theory, since environmental uncertainty doesn't seem to matter much, differentiation may not be a key consideration, integration is important no matter what, and confrontation is important probably for the same reason as bureaucracy -- an emphasis on rationality.

20. Goal congruence theory [Chris Argyris] envisages an ultimate movement from bureaucratic forms to group-based, highly participative systems via T-group interventions. Research has shown that in most cases the entrenched bureaucratic structures are modified very little and practitioners have become increasingly skeptical about the use of sensitivity training.

21. Bureaucratic demise theory [Warren G. Bennis] emphasizes temporary systems of a professional nature as the ultimate goal, but as with Goal congruence theory, replacing bureaucratic forms via the use of T-groups remains the central focus. Successes have been liberally mixed with failures, suggesting bureaucracy is more resistant to this type of application than originally anticipated.

Not-So-Useful Theories

22. Psychological open systems theory [Daniel Katz, Robert L. Kahn], like most theories that follow the system paradigm, has yielded little by way of useful applications. The authors do recommend a number of applications that would tend to democratize organizations in various respects, but these applications were created elsewhere and often do not follow logically from the theory, which is value neutral.

23. Mechanistic and organic systems theory [Tom Burns, G. M. Stalker] advocates a switch to more organic forms under conditions of technological and market change but has relatively little to say about specific applications. Moreover, research to test the theory has been sparse and inconsistently supportive. The simplicity of the theory makes it appealing but may also be its undoing, with more complex explanations needed.

24. Control theory [Arnold S. Tannenbaum] has produced a sizable amount of research demonstrating that anything that can be done to increase the amount of control in an organization, or the perception of it, should be done. It has not moved on to generate techniques for increasing control nor endorsed other means to this end.

25. Group-focused system theory [Ralph M. Stogdill] has not been as strongly committed to humanistic values as most of the others, but in tune with its systems emphasis has little to say about applications.

Comments on Organization Development Theories

One problem with organization development-oriented theories is that a number of them, often those of a systems nature, have not been concerned with application. A second problem relates to the "best way" stance of the theories, which work only part of the time and discourage looking for contingency variables and applicable, limited domains.

Structuring Theories

Structuring theories are the most difficult to create because they operate at a macro level and must deal with the complexity of the organization as a whole. None of these theories can be said to have *produced* applications that represent useful knowledge, although several *deal with* applications of this kind.

Question Mark Theories

26. The theory of bureaucracy [Max Weber] described bureaucratic structures but did not create them, although Weber ultimately endorsed bureaucracy as the most effective form of organization (though not necessarily the most attractive to its members). He did formulate certain critical dimensions that would make it easier to structure and operate an organization along bureaucratic lines, most of which have met the test of research. But critical comparative research that would pit bureaucracy at its best against other forms at their best, such as professional organizations, has not been conducted.

27. The theory of strategy and structure [Alfred D. Chandler] emerged out of historical analyses, so that the growth strategy and divisionalized structure that are its major concerns existed before the theory was stated. It encouraged consultants to recommend multidivisional structures, an action which fosters growth but shows little relationship to profits, making the value of the application questionable.

28. Classical management theory [Henri Fayol], insofar as it represents a "best way" approach with universal principles of management, clearly needs qualification. Yet historically it contributed something useful to primarily bureaucratic organizations and some of the principles remain valid even now in certain contexts. However, there are better and more precise ways of stating them.

Not-So Useful Theories

29. The decision-making concepts and constructs [Herbert A. Simon, James G. March, Richard M. Cyert] are stated in largely descriptive rather than normative terms and there was never any intention of developing applications. The structuring of organizations is viewed as a consequence of their decision processes, but the theory remains concerned only with understanding existing structures.

30. Technological determinism [Joan Woodward] was to evolve from testing principles of classical theory and creating from the results more precise and specific formulations that could be taught and used. However, formulation and testing the new theory became all-consuming, and the focus never shifted back to developing applications.

31. Sociological open systems theory [James D. Thompson] deals with practical matters of structuring and operating organizations and can be interpreted in normative terms. Yet applications as well as research have been stymied by its high level of abstraction.

32. Technology in a comparative framework [Charles Perrow] has suffered a similar fate to technological determinism in that the author has never become sufficiently satisifed with the theory to move on to applications.

Comments on Structuring Theories

At the level of organizational functioning, theory has not been very successful in spawning applications. It might be best to focus on more delimited problem areas, such as ways of organizing temporary project teams, or top level decision making, or sales offices, and make the leap from knowledge generated there to organizational issues of greater complexity. In other words, one

might pave several roads over the foothills and then use these as jumping-off places to tackle the mountains themselves.

Usefulness and Validity

In addition to usefulness in practice for purposes of application, the theories were nominated for inclusion in this study with the additional criterion of usefulness in understanding, explaining, and predicting organizational functioning. Estimates of validity were made by ratings of the author into three categories. A *high* rating was given if substantial segments of the theory had been supported by subsequent research. A *mixed* rating was given if the research evidence, though plentiful, was conflicting. A *low* rating meant either that the research evidence was primarily non-supportive or that the theory had been the subject of very little research.

Table 1 plots each theory with respect to estimated validity and estimated usefulness in application. Although there is a slight trend in the direction of a positive relationship, so that the most valid theories are also the most useful, that trend is far from statistically significant. On balance the data do not support the Lewinian contention that good (i.e. valid) theories are also the most useful ones.

There are eight theories that achieve a higher rating on usefulness than on validity. Applications here have often detached themselves from the underlying theory, so that even though the theory was a catalyst to set the application in motion, it took on an independent identity of its own. This is particularly noticeable for organization development-oriented theories.

Somewhat more often (11 instances) the validity rating exceeded that for usefulness, and in four of these the disparity was quite pronounced. These four theories represent a golden opportunity for the extension of a valid theory into the practical world of application.

The theories in Table 1 have also been categorized by domain of theory formulation. Here the results are clear but somewhat surprising. None of the leadership/supervision or structuring theories were rated high on usefulness. In contrast, only one organization development-oriented theory was rated high on validity (control theory), and in that case it was the segment of the theory farthest removed from the OD framework that received the major research support. All of the theories rated high on both usefulness and validity were motivation theories.

One reason for the relative success of motivation theories may be that even within that one domain, they occupy rather circumscribed areas. They are not grand theories, perhaps not

TABLE 1. Usefulness - Validity Matrix
By Domain of Theory and Degree of Theorist

Estimated Usefulness	Estimated Validity		
	Low	Mixed	High
High	17. OD [P]	2. M [P].	1. M [P]
		18. OD [P]	3. M [P]
			4. M [P]
			5. M [P]
Questionable	19. OD [NP]	10. L/S [P]	6. M [P]
	7. M [P]	20. OD [NP]	12. L/S [P]
	11. L/S [P]	27. S [NP]	26. S [NP]
	21. OD [NP]	13. L/S [NP]	
	28. S [NP]		
Low	8. M [P]	22. OD [P]	29. S [NP]
	30. S [NP]	14. L/S [NP]	9. M [P]
	32. S [NP]	31. S [NP]	24. OD [P]
	23. OD [NP/P]	25. OD [P]	16. L/S [P]
	15. L/S [NP/P]		

KEY: **Number of theory** refers to text.

Theory domains: M = Motivation, L/S = Leadership/Supervision, OD = Organization Development-Oriented, S = Structuring.

Degree of theorist in brackets: P = Psychology, NP = Non-Psychology.

even middle range, but within their specialized, focal areas they are quite successful. A close look at these theories may be instructive if we are to find the road over the mountains from theory to application and pave it to make the crossing easy.

A final piece of information shown in Table 1 is the type of department or program that produced the professional degree of each of the 41 primary theorists listed. The only non-psychology areas with meaningful frequencies were business, especially organizational behavior, and sociology, but in neither case have the theorists achieved high levels of either validity or usefulness. The table clearly shows that the more a theory is valid and practical, the more likely it was created by a person with a background in psychology.

Overall, this view of organizational science theories and their subsequent applications is sufficiently negative to suggest a readjustment of goals, paradigms, and basic processes. Surely it appears that someone must work directly on applied problems if applications are to emerge from theory. At this stage in the development of organizational science, limited scale applications focused on specific problems seem much more likely to succeed than broad solutions to complex problems.

This article was adapted from the author's chapter in Kilmann, R. H., Thomas, K. W., Slevin, D. P., Nath, R. & Jerrell, S. L. (Eds.), Producing Useful Knowledge for Organizations, *New York: Praeger, 1983 and from his address to the November, 1982 conference of the Southern Management Association. The reader is referred to these sources for an expansion of the ideas presented here and for specific references.*

I/O PSYCHOLOGY AND PRODUCTIVITY: A MATTER OF RECOGNITION?

REPORT OF THE WHITE HOUSE CONFERENCE ON PRODUCTIVITY

By RICHARD A. GUZZO

On September 22-23, 1983 a White House Conference on Productivity was held in Washington, D.C.. It brought together representatives of government, industry, and academe, and it served as both a reflection of the broad national concern about productivity in the workplace and a stimulus to new practices and research for increased productivity. I attended this conference on behalf of Division 14, and in this report I describe the conference briefly, giving special attention to the issues of most interest to Industrial/Organizational Psychology.

The conference was funded by a special Congressional appropriation resulting from a bill co-sponsored by Senator William V. Roth (DE) and Representative John J. LaFalce (NY). The two-day meeting in Washington was, in fact, the culmination of four preparatory meetings held across the country between late June and early August, 1983. The agenda of the conference reflected the topics of those four preliminary meetings. The agenda concerned productivity as it relates to human resources, private sector initiatives, capital investment, and governmental organization and operation and its role in the economy. The conference proper was preceded by a half day of workshops on related topics.

Of most interest to I/O psychologists were the topics of human resources and private sector initiatives for productivity. And rather than dealing with each of these topics separately as they were addressed at the conference, I would like to discuss a few themes that, as they emerged in the conference, cut across the two topic areas.

Major Conference Themes

One theme that emerged with surprising consistency was that of worker participation as an effective means to increased productivity. It was pointed out that participation could occur in a variety of ways, such as through task forces at the workplace level, labor-management committees, practices of management which call for sharing of power and decision making, and especially quality circles. Successful cases of productivity improvement programs involving participatory management were cited throughout the conference, such as the employee involvement program at Ford Motor Co. and the participative management program at Motorola, Inc. The endorsement of participation heard at this conference stands in sharp contrast to some recent literature in I/O psychology that argues against the value of participation. The field seems far more divided on the merits of participation than did the speakers at the conference. Maybe somebody is misreading the data or maybe we simply need a more integrative understanding of the nature and effects of participation.

A second prominent theme of interest to I/O psychologists was the emphasis placed on incentives. Merit pay was advocated by many as a valuable tool for raising organizational productivity. This

advocacy came in the form of traditional individual incentives as well as group-based incentive pay (such as payment made contingent upon the performance of a work team or quality circle) and organization-wide incentive plans. Incentive pay for employees in government also was advocated, and financial incentives in the form of employee stock ownership plans were identified by some as possible routes to increased productivity.

Training was a third means of increasing productivity heavily emphasized in the conference. In particular, the retraining of workers displaced by new technologies or shrinking industries was emphasized, as well as training for disadvantaged workers and new entrants into the work force. The potential for labor-management cooperation for training was cited, and the agreement between the United Auto Workers and Ford Motor to retrain auto industry workers, even those who might be leaving the auto industry, was offered as a case in point.

Other Issues

Other features of the conference of general interest included the view that "high technology" is not to be regarded as a savior of a faltering American economy. Technological advances unquestionably have a role in enhancing productivity and making American firms competitive with foreign firms which have extremely low labor costs, but the sentiment of the conference was that productivity improvements in "low technology" and service industries are crucial to the success of broad-scale efforts to raise American productivity. The responsibility for achieving productivity gains in such industries was found to rest primarily with management, although it was also seen to be affected by things such as government regulations and the quality of American education. Interestingly, responsibility for the lagging rate of productivity growth in the U.S. was attributed heavily to management failures regarding the management of innovation, excessive emphasis on short-term measures of performance, and unwillingness to adapt old management practices to new circumstances.

From the perspective of an I/O psychologist, the conference lacked certain qualities. There was, I believe, insufficient attention given to rigorously collected data about the impact of programs such as training and the use of incentive pay. A substantial literature within the I/O field (and related fields) concerning the effectiveness of such programs exists, and I found little utilization of such data. In contrast, that part of the conference dealing with economic policies and productivity explicity recognized recent empirical findings as they related to issues such as taxation and industry regulation. In addition to this lack of attention to available data, the conference also failed to note some of the traditional ways in which the field of I/O psychology has contributed to industrial productivity, such as through selection practices. Overall, while the attention given in the conference to human resource issues related to the field of I/O psychology was substantial (and at least equal to the attention given to other topics such as fiscal policies), there appeared little explicit recognition of the contributions of I/O psychology on these issues.

Implications for I/O Psychology

What are the implications of the White House Conference on Productivity for I/O psychology? The conference suggests that concerns of inadequate productivity will persist. And while such concerns can be addressed from many disciplines, I/O psychology seems to have an important opportunity at hand to contribute to the resolution of productivity concerns. This opportunity can be exploited in part by making known what the field has already accomplished in understanding the causes of worker productivity and applying that understanding to the benefit of workers and organizations. Perhaps a reason why the conference gave little note to the accomplishments of the field is that the field has been inadequate in making known what it has to offer.

Another way the field can exploit the opportunity to resolve productivity problems is to press for more research in field settings to demonstrate the impact of I/O psychology's theories and interventions. By this I do not simply mean that laboratory research should be moved to the field or that survey studies should be abandoned. Rather, I suggest that more effort be made to conduct productivity-related research in organizational settings, to assess the actual impact of that research, and to make known that impact to potential consumers of that research.

People interested in learning more about this conference may obtain a copy of its final report. The final report will, I believe, be published by the U.S. Government Printing Office, and it is possible that it could be obtained by writing the organizers of the **White House Conference on Productivity, The White House, Washington, D.C. 20500.**

WHAT CAUSES TROUBLE:
FROM GRADUATE SCHOOL TO APPLIED SETTINGS

By GARY G. KAUFMAN

When a budding I/O psychologist leaves a school for a job in an applied setting, he or she makes a major transition. As a manager of personnel research units in government and in the private sector for ten years, I've watched and worked with a number of interns and new Ph.D.'s as they tried to make this adjustment. When problems arose, they could usually be traced to the areas of communications, value conflicts, and basic professional skills. This article will explore these areas and offer a recommendation for the ideal graduate education.

Communications

The impact of a psychologist on an organization depends very much on his or her ability to communicate. It does little good to have a great idea if you can't get anyone to buy it. Communication problems I see in new psychologists come mainly in three areas.

The first problem area is having the wrong goal. On the surface almost everyone would agree that the goal of communication is to transmit clearly your thoughts and feelings to others. However, sometimes there is a difference between what people say they believe and what their actions imply they believe.

Why does this happen? One reason is that we are outsiders in our organizations. We haven't come up from sales clerks or stockboys. Most of us really aren't even business people. Our existence in the organization is justified by our being "experts." It is only normal for a new psychologist to conclude that he or she should sound like an expert. If he or she talks and writes like an ordinary person, management will think they aren't getting their money's worth. Unfortunately, as logical as this strategy may be, it is a sure ticket to frustration.

Gary G. Kaufman

A friend of mine recently told me a story about a young psychologist who had just presided over a disastrous group meeting with a number of line managers. After the meeting, one manager complained to my friend that he could not talk to her. He summed up her performance by saying, "If I asked her what time it was, she would tell me how to make a watch."

My advice to young psychologists is to forget about trying to impress people with how you speak or write. Instead, make your goal for communication getting your thoughts across to your audience as simply and as clearly as possible. Rely on the great work you are doing to create the right impression.

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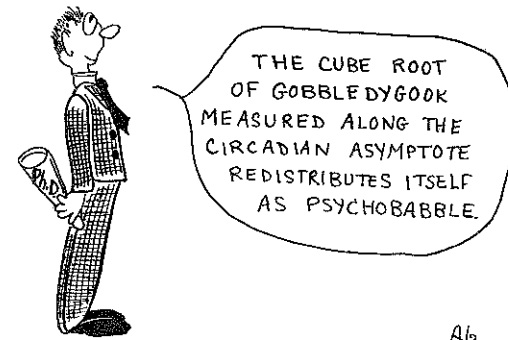
In the second problem area, I want to focus on technical skills in written communication. In my opinion, much of the writing in our profession, applied or academic, is poor writing because it is unnecessarily difficult to read. Certainly, I recognize that we work with complex material; however, the mark of good writing is expressing complex things simply. This is particularly true in applied settings where the readers have not been trained to decode our language.

Let me give you an example from interviewer training material:
"The purpose of the interview as part of the selection process is to seek descriptions of *behavioral* experiences from the candidate's background. The assumption operating here is that past behavior predicts future behavior."

I rewrote this as:
"The selection interview collects examples of what an applicant has done. These examples are important because what a person has done is a good predictor of what he or she will do."

I'm not advocating that a course on business writing be added to the core curriculum of I/O psychology (although it couldn't hurt). I think this is more an area of personal competence where the responsibility belongs to the individual. What I am recommending is that graduate students (maybe faculty too) take a course in writing. It could prove to be an excellent investment.

The third problem in communication is the lack of charm school techniques. Some of you may be a little surprised at this. Perhaps you're thinking, "Isn't this a little obvious and superficial? After all, we are psychologists." Well, it may be obvious and superficial, but I still see psychologists' efforts at communication self-destructing because of what I call poor communication hygiene.

Let me give you an example. A very competent government psychologist developed a management selection system. The system worked quite well, but when he reported his results to top management, he started his presentation by saying, "For years this agency has done a poor job selecting management" and he went on to detail how inconsistent and unscientific the old method was. When he was done with his report, a senior official came up to me and said,

> "I'm surprised a psychologist would start out like he did. Most of us are proud of our personal involvement in the old selection program and a few of us were even selected by the old program. He should have said, 'We do a good job selecting managers. Many of you in this room are proof of the program's effectiveness. However, I believe we have an opportunity to make this good program even better.'"

What that official was talking about was simple charm school technique: Don't stack the cards against yourself; use a little diplomacy.

Communications are important. Don't let your good ideas die because you can't sell them. Along with that, psychologists with good communication skills make my job one heck of a lot easier.

Value Conflicts

Behavioral scientists and managers sometimes appear to be from different cultures. Research on this topic is skimpy; however, there are two studies that address it.

James Lee (1982) had behavioral science graduate students, personnel directors and managers rank fifteen statements of values. The personnel directors and graduate students were in close agreement. They differed from the managers in that they ranked the following three values as less important:

1. The recognition of one's superior as both a source of authority and the one responsible for what his subordinates do.
2. The capacity to be personally loyal to company, organization or work group.
3. The need to maintain appropriate status differences between manager and subordinate levels of employees.

They ranked one value as more important:

1. The capacity to respond to human needs and problems and to be sensitive to the feelings of others.

In the second study, Noel Tichy (1974) asked 19 OD practitioners about their primary consulting goal. The most frequent response was to "aid society in solving social problems." This was followed by "help increase the social and political power of people at the bottom of institutions and society." Only two of the fourteen gave "growth and development of the corporation" and "increased efficiency and output."

In another part of Tichy's survey, the practitioners were asked about their preferred intervention tactics. All but one responded with "changing the decision-making structure" and all but two "changing the authority structure." It is easy for me to see why some of these consultants might conflict with managers who want to retain their position and power.

My own personal experience in adapting to organizational life as well as watching my colleagues working and adapting in their own jobs has led me to a few additional inferences about values.

Psychologists	Managers
Participative decision making and power sharing are good.	Clear directions from the top and managerial control are good.
Decisions should be based on objective quantifiable data. Subjective judgments are bad.	Gut-level judgment and intuition are valuable and legitimate in decision making.
Human resource programs have great value to organizations.	Efficient operation is the best way to make a profit. Human resource programs are often unnecessary expenses.
Managers are backward and unsophisticated about human nature.	Psychologists are head-in-the-clouds academics who never really fit into an organization.
Bosses are an irritant and an inhibitor of good work.	Bosses are teachers and sponsors who give valuable guidance and support.

These are somewhat overstated, although I have known people on both sides who would offer even more extreme and occasionally unprintable supporting opinions.

I think there are two important points here. First, for those of us who are either internal or external consultants, managers are the medium through which we work. If a consultant can't at least temporarily fit into management's value system, that consultant will be like a politician who can't bring himself to slap backs and wheel and deal - he or she will just not have an impact. Management won't trust you to give them good advice.

Second, as an internal consultant you will work for a manager. You need to be able to understand and appreciate that person's values, and you have to learn to manage your boss. Otherwise, you risk calamities ranging from simply being ignored to finding yourself trapped in a conflicting work relationship that can harm you physically and mentally.

What are these values you need to manage and fit into? Obviously, they will vary from organization to organization and manager to manager. I've alluded to values that seem different between psychologists and managers, but I really haven't specified a value system that would carry you unscathed through the transition from school to work. I'm not certain such a thing exists. If I had to pick a statement of values from things I have read, I would choose the following quote from the president and CEO of a manufacturing firm:

> "It is the *ability to make positive things happen* which most distinguishes the successful manager from the mediocre or unsuccessful one. It is far better to have dependable managers who can make the right thing happen in a timely fashion than to have brilliant, sophisticated, highly educated executives who are excellent at planning, analyzing and dissecting, but who are not so good at implementing. The most cherished manager is the one who says 'I can do it,' and then does." (Sorenson, 1982).

This quote clearly reflects the values of most managers I've known, and by simply substituting "I/O Psychologist" for the words "manager" and "executive" in the quote, you are left with an excellent prescription for success in an applied setting.

Basic Professional Skills

In one sense, we I/O professionals are consumers of a product produced by graduate schools. We hire I/O psychologists because we believe they can do economically valuable things for our organizations. For example, what I believe organizations need most are: 1) good quality selection and promotion systems, 2) research designs that lead to sound decisions, and 3) accurate attitude survey data. However, there are times when I as a consumer have wished to have a product recall for a psychologist.

Certainly, I expect some rough spots at entry, particularly in areas like communications and interaction skills; and I regard as my responsibility on-the-job training in these areas. However, I don't think I should have to teach basic psychometrics, statistics, or research design.

Let me give you a few examples to illustrate my point. First, constructing selection and promotion tests is one of the most basic and one of the most economically valuable things an I/O psychologist does. But there are Ph.D. I/O psychologists who leave school without having ever constructed any sort of written

test. Sure they remember enough from Guion, Ghiselli, or Nunnally to talk a good game, but there is a serious gap between talking about test construction and actually constructing a test. Consider a medical analogy: would you go to a surgeon who has only read some books on surgery?

As a second example, take the area of research design. We often advertise ourselves as experts on designing research projects. We can talk about control groups and placebo effects and quasi-experimental designs. And most psychologists are taught the disastrous dictum that they must be ready to compromise good design for organizational realities. I think the opposite is true. It is often easier to do good research in organizations than in schools. I think we should teach our students that they should never compromise on good research design. If the project cannot be made to yield good quality data, psychologists should explain this fact and should encourage the organization not to waste its money.

What really blows my mind is that there are new psychologists who don't understand why random selection is important in research design. Novice research designers love to put together matched group designs. It seems as though they are thinking "If random is good, matching must be better." Unfortunately, I have never seen them go on to the necessary second step of randomly assigning members of the matched groups to experimental conditions. What happens is they take existing groups and get results that are frequently confounded with regression effects.

One final example, this one in the area of inferential statistics. Assume for a moment that an organization wants to know about the morale of its first line supervisors. A psychologist designs a survey and sends it to a random sample of 400 first line supervisors. He gets back 200 usable returns. The psychologist exclaims, "A fifty percent return rate! This is much better than most surveys of its type." The psychologist tabulates the data and proudly reports the results as reflecting the morale of first line supervisors.

Unfortunately, one can find numerous other examples of this sort of inference in our most carefully referred journals. What is wrong? The psychologist is making inferences about the wrong population.

Choosing to correctly complete and return a questionnaire is a non-random event. The remaining half of the sample may well be different in a variety of significant ways. The population about which inferences can correctly be made is first line supervisors who choose to fill out and return a questionnaire.

Unfortunately, information about this population does not match the needs of the organization. What is worse is that the

organization may use the information to make decisions about all first line supervisors.

The Ideal Graduate Education

Although I will not really prescribe the ideal graduate education, I will speculate on what I think would give me what I want from interns and Ph.D.s. First of all and most important, I really would appreciate basic technical competency in psychometrics, statistics, and research design. I've taught enough to know it's a drudge to try to pound this stuff into the heads of graduate students. And I can't blame faculty members for excursions into far-out leadership and decision-making theories. However, our profession needs some curriculum discipline, and I cast all my votes for these basics.

Second, the communication skill building and value adaptation can occur on the job. It is hard on the new psychologist (who thinks he knows everything), and it is hard on me (who is certain he knows everything), but we usually succeed. At the same time, academic training can be a big help.

In communication, I would recommend two things:

Encourage students to take a course in business writing. If this is not available, English Composition is a good substitute.

Require students to write clearly in their course work. (If you, as a faculty member, write like the "bad" example I gave earlier, then take the course first so you know what is appropriate.)

Giving students exposure to organizational values is harder. Internships in organizations are the very best solution. However, internships are not always easy to set up. As a backup strategy, I suggest bringing in an adjunct faculty member to teach courses on consulting skills and organizational survival. If you can't do that, at least arrange for speakers from applied settings to address topics like these.

This article was adapted from a presentation at the 1983 Convention of the American Psychological Association.

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DIMENSIONS OF DIMENSIONS

A FEW MINUTES WITH RICHARD KLIMOSKI

For all its claims for precision in the use of language, our field of Industrial and Organizational Psychology is perhaps no better in this regard than many others. One term that is used frequently by many of us, but which suffers from multiple interpretations, is the term "dimension". I am thinking, in particular, of the variety of ways in which the word is involved in the research and writing on performance appraisal. It seems to me that in this context especially, the term "dimension" has many dimensions.

In the performance appraisal area we normally think of Dimensions of Performance. A simple typology in this regard is the dimensions of "quantity" and "quality". These have been around for five years. But few researchers or organizations are content with something this simple. So inevitably the list gets augmented with accommodation of not only quality or quantity but also of performance in certain areas or tasks. These might be considered (and are by many) Task Dimensions. Thus, the manager is to be assessed on "meeting budget" or on producing "customer satisfaction". Usually these dimensions derive from a job analysis.

In some writings, facets of task (job) performance are viewed as Dimensions of Effectiveness. The subtle distinction here might be that effectiveness dimensions may reflect aspects of performance but might also include certain personal qualities brought to the job by the incumbent. Consequently, when we think of individual effectiveness, we frequently invoke terms that stress skills or other job relevant attributes. Oral or written communication skills, leadership, decisiveness, etc., are frequently offered as examples.

And then there is the notion of Behavior Dimensions. The use of this type of dimensionality became increasingly popular during the 1970's, when a great deal of research and writing was committed to Behaviorally Anchored Rating Scales (BARS) or Behavioral Expectation Rating Scales (BERS). The curious thing about these behavioral rating scales, however, is that the dimensions used more frequently reflect the consequences of behavior (outcomes) than behavior itself. The example "Meeting day-to-day deadlines" seems to have this quality. In fact, it is hard to find many good instances of behavior dimensions in the I/O literature. More can be found in the areas of sports and dance.

Another set of dimensions which should not be overlooked in this discussion are Dimensions of Ability (or capability). These appear to reflect those attributes that an individual may or may not possess but which have implications for performance. Some examples are intelligence, drive, commitment, etc. In some ways they are similar to dimensions of effectiveness as used by some authors. The key point here is that these dimensions reflect potential causes of effectiveness or lack thereof.

Dimensions of dimensions described above mirror some points made by Campbell and his associates in their 1970 book, *Managerial Behavior, Performance and Effectiveness.* They too recognized that researchers and practitioners alike were emphasizing different dimensions in the published literature on Performance Appraisal. Actually, they coined the useful mnemonic phrase of "Person, Process, Product" to capture some of these distinctions in the aparent hope that some discipline could be brought to the area. But the fact is, over 10 years later we continue to see these various categories of dimensions used interchangeably. This can cause both semantic and conceptual confusion. And it certainly doesn't make it any easier to develop and implement performance appraisal systems.

I'd like to propose a solution. As in many areas of life and work, the truth of the matter is complex. We probably need several sets of dimensions to adequately deal with the variety of purposes or uses for which appraisals are carried out (Wexley & Klimoski, 1984). What I would like to suggest is that we reserve the phrase "dimensions of effectiveness" as the overarching or global term. We would then consider success in this dimension to be a function of strengths in the areas of (on dimensions of) performance, or behavior, or capability, or on some appropriate combination of these. As mentioned, in practice, the dimensions to be emphasized would be largely dependent on the purpose at hand. There seems to be a place for all of these dimensions in our work on performance appraisal. The key is to be aware of what that place is.

I hope that this essay helps to add a dimension of clarity to an area that has puzzled me for some time.

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VIDEODISC

A NEW TECHNOLOGY FOR APPLIED PSYCHOLOGY

By JOHN R. HINRICHS

Over the last several years a few pioneering organizations have begun to experiment with and apply the powerful new technology of interactive videodiscs in various areas of human resource management. While growth in the use of this technology has been relatively slow and the numbers of users limited, their experiences suggest that this is a truly revolutionary technology with very important implications for many areas of applied psychology. In all probability, we'll see a great many more videodisc applications over the next few years, and most industrial and organizational psychologists will need to have at least some familiarity with its potentials and use. And it's not too farfetched to see a time when interactive video, like the computer, will be an integral part of the working kit of tools of most practicing I/O psychologists -- as well as of many engaged in more basic psychological research.

This article will try to explain the reasons for these seemingly extravagant claims. It is based on an excursion through the literature, discussion with a number of users and suppliers of the technology, and on personal experience.*

What is Videodisc?

Videodisc is a new technology under which video and audio information may be stored on the surface of a disc similar to the commonplace phonograph record. But, unlike the traditional audio disc, videodisc contains a tremendous amount of information which can be randomly accessed in both visual and audio formats.

There are two types of videodiscs, and they use different technologies. One depends upon direct contact of a stylus to retrieve the information; the other uses optical laser technology, reading the information as minute impressions and peaks on the

surface of the disc. While both of these technologies present some advantages over traditional videotape, I will focus on the optical laser technology because it opens the broad range of possibilities that can be described.

Each side of a videodisc can contain 54,000 frames of information, either as still frames or as motion pictures. In the pure motion picture format, the disc will play for 30 minutes. By mixing still-frame information with motion picture, most videodisc programs can be made to be significantly longer than 30 minutes.

What is particularly exciting about this technology is the ability to randomly address any of these 54,000 frames with split-second timing. This capacity sets videodisc off from the stylus technology as well as from traditional video cassettes, which are most useful in presenting straight linear programs. True, there has been increasing use of videotape in an interactive mode, but the lag time involved in rewinding or advancing the tape forward to the desired address severely restricts the possible applications. This is not the case with optical laser videodiscs.

There are a number of additional features which set this technology apart as truly unique, including:

- Along with the video picture, it's possible to lay down two tracks of audio on the videodisc. This permits producing programs in two languages, for example. Or, one may lay down the audio for a generic program on one track and detailed specific or technical data on the other, thus having video information with two different audio tracks which can be selectively accessed depending upon the unique needs of the user.
- New technology also will permit access to limited audio information to accompany still-frame pictures as well as video. This further increases the breadth of program material which can be included on a single disc.
- Picture quality from videodisc is significantly better than from videotape, due to the nature of the technology.
- When used in a training environment, videodisc vastly expands the instructional capabilities of such previous technologies as programmed instruction and computer-aided instruction. CAI, for example, is an individualized interactive medium, but it deals only with data, graphics, or whatever information can be put on a video display terminal of a computer. With videodisc, instruction can include all of the types of material used in traditional CAI, but it can be supplemented with audio and visual material to illustrate, document, and dramatize the learning process. While CAI is analogous to a print medium, videodisc moves the transmission of information into an arena with which people are more and more accustomed today -- the video format. The potential power for information transfer is tremendous.

- There's additional flexibility in videodisc technology. Until now, optical laser technology has included the programming for accessing the disc as a permanent part of the disc itself, laid onto the disc at the time it is stamped and unchangeable without producing an entirely new disc. Today, however, we're beginning to see the programming offloaded onto an external microprocessor where it can be changed at will. Thus, videodisc programs can be updated and modified as experience with them grows and needs change. By using an external microprocessor to drive the disc, the cost of the technology is reduced and the flexibility in its use increases. Because of this, most future disc players will simply be a laser disc turntable, driven by an external microprocessor, rather than incorporating the microprocessor within the videodisc player, as initial models have.
- By tying the videodisc to a microprocessor, it is possible to incorporate many program maintenance functions into an application. For example, the computer can log the inputs of individuals or groups and track progress in working through the material on the videodisc. Also, different types of testing and branching criteria can be incorporated in the program and changed as needed depending upon user characteristics. This further increases the value of the feedback and selective branching for drill and emphasis, as in a training program, which are among the attractive features of videodisc technology.
- In a training situation, videodisc can free up the instructor to focus primarily on the instructional and learning process, rather than on communicating program content. Future training driven by videodisc will undoubtedly have most of the subject matter for instruction presented in the disc format, and the instructor's role will be to facilitate the learning process by enhancing group participation and interaction, guiding group interaction with the technology, tracking performance, and individualizing instruction. Quality of instruction should be more consistent and presentation of instructional material paced to the needs and capabilities of trainees. This is as true of individual auto-instruction as it will be of the use of videodiscs in group situations.

Types of Applications

So far organizations have barely scratched the surface of potential applications for the technology. But it doesn't take a great deal of imagination to see many more potential uses. Here are a few:

1. *Access to Information.* Because the videodisc can store a great deal of information to be accessed randomly and interactively, some companies have used it like a catalog. A major

retailer has put their catalog onto disc, and one can engage in a shopping trip by merely interacting with the disc. An auto company has used videodisc to let customers configure the automobiles which they want with different accessories and styling. A museum has catalogued all of their paintings on videodisc, and they can be accessed at will in whatever sequence is desired by students.

2. Decision Making. Here the videodisc can be used to provide information to individuals or to groups to assist in their decision making. For example, a company might provide information on videodisc about its benefit plans and allow employees and their families "to take an excursion" to plans of interest to them and to configure which benefits they want under a cafeteria-style program. Or, a videodisc might give employees who are considering relocation to other areas a preview of the key features of various locations so they can make a more informed decision about whether or not they want to accept a different job assignment.

3. Training. This is the application with probably the greatest potential for videodisc technology and where it has been used most extensively to date. The technology lends itself to any kind of training program where information needs to be transferred -- in the forms of data, audio, video, graphics, or even print.

For example, the videodisc would be ideal in an application such as computer literacy training. One could visualize, in the case of a videodisc driven by a computer, having the training start out by providing general information about use of the computer and gradually guide people into more hands-on direct interaction with the system. Progress could be monitored, feedback given, correct approaches demonstrated, and special drill given in areas of need, using any of the information media (video, audio, graphics, data). In an application such as this, the programming would be structured to move progressively from an emphasis on the video to more and more emphasis on the computer itself, with hands-on operation to build comfort and knowledge.

Other training is equally relevant, and the interactive and branching capability of the videodisc presents some exciting opportunities. For example, in training in communications skills one could have trainees decide how they would structure certain communications or responses to others, and then have the program material branch to vignettes of scenarios showing the probable response to that form of communication. Or, for example in training on safety, one could have individuals or groups decide which of several practices they would follow under certain situations and the potential consequences could be played out on the disc to dramatically illustrate the benefits of safe practices and

the hazards of unsafe ones. There are limitless potential applications in the training arena.

4. Counseling. A topic such as personal and career guidance could be greatly enhanced through videodisc technology. The disc could contain visual information about various occupations and individuals could work their way through these illustrations to identify career areas best fitting with their own objectives and preferences.

5. Selection. The videodisc could be very useful in providing realistic job previews for job applicants. It is a way to let them get some direct illustrations of what it would be like to function in various jobs, and thus do some personal decision making to assist in selection and placement decisions.

6. Job Analysis. Similarly, it should be possible to do much more accurate job analysis studies by presenting the stimuli for individuals to describe their jobs through videodisc technology. The cognitive leap to identifying the behavior required on one's job should be made much easier by looking at dramatized illustrations of job behaviors than it would be by reading descriptions on traditional job analysis questionnaires.

Costs

One of the reasons why the application of videodiscs has not been as widespread as it might be is that it is a very costly technology. To produce a top quality disc with programming on the disc itself -- with the traditional technology up until now -- costs well in excess of $100,000. This is clearly beyond the reach of many organizations. But even with this technology, the unit cost when discs such as this are stamped out in quantity (over 1,000, for example) falls below the costs for videocassettes. So for widespread applications such as the major retailer putting its catalog on disc or the auto manufacturer using discs to configure automobiles, it's a cost-effective technology even when the programming is included in the disc.

With the programming being off-loaded onto a microprocessor, however, the cost of videodisc applications is coming down dramatically. And, as was said, flexibility of use is increasing in an equally dramatic fashion. Traditional players used to cost well over $2,000; when they are used solely as a turntable tied to a microprocessor, that cost should come below $1,000 for a player. So, as costs go down and experience with the technology increases, we should see growing interest in using videodiscs in a range of dynamic applications.

Implementation

Videodisc technology is complex. Whereas many training departments have their own videotape capability and even relatively unsophisticated trainers can produce programs, this is not the case with videodisc. A team effort is required in production. There are at least four essential disciplines needed:

a. Content or subject matter experts.

b. Instructional designers who know the learning process and how to put together a meaningful curriculum and who also know how to capitalize on the power of the videodisc technology.

c. Audio visual people skilled in motion picture and television producton.

d. Computer programmers.

Probably the key role in the whole process is the individual who can integrate the members of this team. To date, there are not many who can do it well, but there are some. There is a big area of opportunity here, and the need will probably explode in the years to come. Big organizations will undoubtedly develop these skills internally; others will turn to outside sources where the skills and experience in the technology are rapidly being accumulated.

The Future

Down the road we can see videodisc as part of a multifaceted vehicle for basic communication in organizations. Videodisc will be integrated with a number of other technologies for information transfer: computers, graphics, videotex, for example. In the not too distant future these will be supplemented by information transfer through audio chips in computers. The technologies will be used to facilitate classroom instruction, to reach employees and their families at home for information transfer, to have all kinds of information accessible to individual employees, and for enhancing decision making. More and more we will be moving out of the print medium into ready access to videodisc and computer-based information. Videodisc will play a central part in that, and I/O psychologists will certainly become increasingly involved. Those that want to stay up with where tomorrow's organizations are moving will have to learn something about this powerful technology.

Special thanks are due Mr. Robert E. Slack, Manager, Personnel Communications, IBM Corporation, Armonk, NY, for sharing some of his experiences and knowledge of videodisc technology for this article.

ORGANIZATIONAL CHANGE AT AT&T ·

The divestiture by AT&T of its 22 operating companies represents a vast and complex organizational change. Although the full impact on employees may never be known, attempts will be made to measure it by surveys (by the Quality of Work Life group) and interviews (as part of the follow-up program of the ongoing longitudinal research with managers).

In the next article, Manny London describes the new organization structures and shows the initial impact of divestiture on the psychologists at AT&T. The second article shows that in spite of pervasive anxiety and stress among the staff, creativity and a sense of humor ran strong to the end.

WHITHER GOEST THE AT&T PSYCHOLOGISTS?

by MANUEL LONDON
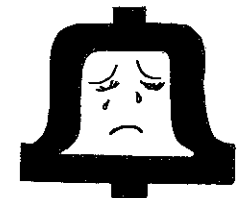
Dick Campbell pointed out in his 1983 presidential address to the Society that the Bell System has been an important field site for research, development, and implementation of many major advances in I/O Psychology, such as the assessment center, behavior modeling training, and test development and validation to name a few. In addition, the Bell System has been the home of longitudinal, basic research on managers' lives and careers.

The AT&T divestiture has the potential for playing havoc with this source of I/O developments. It is a prime example of how corporate changes can affect the role of the psychologist. Some of the initial impact of the divestiture on I/O practice is illustrated here with a look at the changes immediately faced by the Bell System psychologists in terms of their job assignments, reporting relationships, and clients served.

The old Bell System had over one million employees with more than 200,000 managers. The AT&T General Departments (the name given to the headquarters staff) drew its personnel from the Bell operating companies on rotational assignments and also had many career employees (those permanently based in the headquarters staff). The focus was on providing services and expertise to the operating telephone companies. There were about 24 psychologists in the General Departments.

Divestiture has meant the creation of two new central organizations: AT&T Corporate Headquarters and the Central

Services Organization (CSO). These two new organizations and the positions held by I/O psychologists are described below.

AT&T Corporate Headquarters

The AT&T Corporate Headquarters is located at 550 Madison Avenue in New York City. For many of us, this has meant moving our offices from bucolic Basking Ridge, New Jersey to the glamorous Big Apple. AT&T now consists of the corporate headquarters and three major entities: 1) AT&T Communications (the long distance company); 2) AT&T Technologies, including what was formerly Western Electric (the manufacturing organization), Bell Laboratories (for basic and applied research), AT&T International, and AT&T Information Systems (which develops and markets communication products and systems); and 3) American Transtech, which provides stock transfer and related services for AT&T and the regional company share owners. In the future, AT&T may enter into new business opportunities through these entities or by creating new entities.

The new AT&T has about 400,000 employees, including 70,000 to 80,000 managers. There are approximately 2,000 people in the corporate headquarters, almost 200 of whom work in the Human Resources Department. I/O psychologists in the Corporate Headquarters number about 17, although their precise number depends on who are counted as doing I/O work and the nature of their degrees. **Wes Clarke** retains the top spot in the department with the title of Senior Vice President-Personnel.

Divestiture has not only made AT&T smaller, it is also different. It faces an increasingly competitive, uncertain environment. The corporate headquarters staff must set policies for a diverse set of entities. The psychologists in the former Bell System headquarters serviced the operating companies and did little work with Bell Labs and Western Electric; now the corporate headquarters must work with these entities as well as the new organizations within AT&T. Work by the corporate headquarters' psychologists will be more organization-specific, requiring an understanding of the differences among the AT&T entities.

The following sections show how the company headquarters psychologists are now organized and some of the projects underway.

Human Resources Studies. Formerly the Basic Human Resources Research Section directed by **Doug Bray** (now retired), this group is now named Human Resources Studies and is under the stewardship of **Ann Howard**. This group, of which I am a part, has conducted longitudinal research during the last 28 years, which has led to the use of the assessment center, improved selection standards, and management development programs.

Divestiture has created some unique problems for these activities. Nearly all the subjects of the longitudinal studies were from the Bell operating companies, now in seven regional organizations, but the Human Resources Studies group is part of AT&T, no longer affiliated with them. Nevertheless, because of the irreplaceable nature of these longitudinal studies, AT&T intends to continue following the participants regardless of where they are now located. This should present no legal problem since group results have always been publicly available, but it does present a challenge to coordinate data collection and keep the participants motivated to continue. Another challenge will be designing new basic research in the AT&T entities.

Management Staffing, Development, and Education. Directed by **Dick Campbell**, this group is responsible for management continuity. As Dick stated, "Now that the ballpark is smaller, we must be sure to use vacancies effectively." The operating companies are no longer available as a source of management talent, and a major goal of Dick's group is to guide the corporation in identifying and developing high potential managers.

The group has a heavy policy and program implementation role with a strong research and development effort behind it. The R&D function is managed by **Joel Moses**, whose group includes **Kerry Bunker** (formerly in Basic Research), **Mirian Graddick**, and **Karen Lyness**. Their previous studies of coping with stress and ambiguity should be highly relevant to the new competitive environment and will be continued. They also anticipate a greater integration of assessment with career planning and development.

Management Employment. **Ed Adams** and **Ken Pearlman**, formerly in Dick Campbell's section, have changed sites to work on the recruitment and selection of managers. A major portion of their energy is devoted to the development and validation of entry level selection procedures for a variety of jobs in the AT&T entities, including general management, sales and marketing positions, and some technical specialties.

Employment Policies and Systems. This group, managed by **Mary Tenopyr**, provides research, development, and administrative support for valid, legally defensible selection procedures for nonmanagement and selected management jobs; they will now deal exclusively with jobs in all the AT&T entities. Psychologists on Mary's staff include **Margaret Ingate, Ed Israelski, Jerry Kehoe,** and **Sheila Pfafflin.**

Work Relationships. **Tapas Sen** continues as manager of this quality of work life group. They conduct attitude surveys in all the AT&T entities and assist in the development of entity-specific

survey instruments. They analyze trends in employment attitudes and values, provide expertise and leadership in the area of union-management cooperation, and integrate survey findings and QWL experiences to enhance the satisfaction and effectiveness of employees at all levels.

Employment Administration. This group, which includes **Jim Suzansky,** has the mission of developing uniform employment policies and consolidating employment resources across the AT&T entities for management and nonmanagement employees. Also, they are establishing an AT&T quality and productivity network in conjunction with other groups such as Work Relationships.

The Central Services Organization (CSO)

The CSO is a newly created organization, owned jointly by the seven regional operating telephone companies. Having approximately 8,000 employees, its mission is to provide primarily technical expertise to the operating companies. Many of its functions were previously performed by Bell Labs; in fact, many Bell Labs personnel were transferred to the CSO. Forty-five human resources people from the old AT&T headquarters, including about seven psychologists, were transferred to the CSO to do the work previously performed by about 300. Their mission is to provide the operating companies with human resource program development and other support services. The CSO human resources staff is still located in Basking Ridge and will eventually relocate to new facilities in Livingston, New Jersey.

A major difference between the old AT&T and the CSO is one of ownership. In the old Bell System, AT&T owned the operating companies. While the operating companies liked to exert their autonomy, they were subject to AT&T's control. The CSO is owned by the operating companies and subject to their control, and the CSO psychologists must design and conduct projects to their specifications. The CSO staff members are still treated by the operating companies as the subject matter experts in many areas and looked to for guidance, but they must convince the companies that they have something to offer that cannot be obtained elsewhere.

The CSO coordinates projects across regions, enabling research which cannot be done in one region alone. Its work is guided by panels representing the seven regional companies. These panels meet periodically with the CSO staff to review projects, suggest new work, and set priorities. The CSO is continuing many projects begun for the operating companies by AT&T and initiating new work. Some of the activities involving I/O psychologists are described below.

Nonmanagement Staffing. **Steve Checkosky, Larry Fix, Sid Gael,** and **Don Zink** are responsible for the various elements of nonmanagement selection. While some of this work is a continuation of on-going research, there are several new innovative projects to meet the emerging needs of the regional companies. For example, one project is the first large study of a biographical questionnaire as an instrument for clustering people and making placement decisions. Another project is developing mini-courses as a pre-screen for the selection of service representatives. Another concept resulting from the recent union agreement is career development for nonmanagement employees; the agreement calls for retraining employees whose jobs are phased out due to technological advances.

Management Selection. **Bob Ramos** and **Dick Ritchie** are responsible for three major areas, each consisting of a series of projects. One area is the development and validation of management selection procedures. Another is providing the research and development to assist the regions in operating their own assessment centers. A third area is designing management development programs. One project in this area is the development of a pre-screen to determine who should attend assessment centers for evaluating advancement potential. Another related project is post-assessment development.

Other CSO Activities. There are many other CSO personnel activities such as occupational job evaluation **(Will Manese's** responsibility), benefits, safety, training, and quality of work life.

Conclusion (Or More Appropriately...Commencement)

This synopsis of recent events and projects understates the massive changes faced by the companies and the psychologists working for them. Not every activity involving psychologists was mentioned. If we have learned anything, we know that nothing is permanent in today's telecommunications world, and it would not surprise anyone if there were more assignment changes. One interesting possibility is that both AT&T and the CSO may be allowed to sell psychological personnel services to outside clients. This would have the advantage of providing supplemental income to sustain our staffs.

Ed Adams summed up the attitude expressed by many of the AT&T and CSO psychologists by saying that the changes "offer a fascinating and challenging opportunity to work with many diverse jobs in a fast-paced and changing telecommunications environment." We are looking forward to getting on with the work.

DOUG BRAY INAUGURATES RETIREMENT ASSESSMENT

Douglas W. Bray

Douglas W. Bray, creator of the management assessment center, finally got his comeuppance when he was subjected to the role of candidate for the first retirement assessment center. The occasion was his own retirement day at AT&T (November 30, 1983), when a group of colleagues gathered to discern if he should be permitted to retire or not. The center, dubbed the Certified Retirement Assessment Program (CRAP), was hosted by AT&T assessment center manager Tom Vasko on WATT TV.

It was presided over by three executive assessors (Dick Campbell, Bill Sharwell, and Lou O'Leary), adorned in black caps and gowns to commemorate the solemnity of the occasion.

The dimensions created for the assessment and their definitions are shown on the facing page. Exercises to provide behavioral examples on which to rate the dimensions were developed by the consulting firm of Cheatum, Catchum, and Stickum. Some highlights follow.

The first exercise was a report of a background interview with the candidate by Manny London, who noted his hiring in 1956 by a large public utility seeking a spiritual leader of a group of occult researchers and mediums. In the beginning the mediums planned a mystic parapsychological seance called MPS (Management Progress Study, the longitudinal research study of managerial lives and careers, still ongoing). Using the assessment seance method, prying voyeurs with crystal balls uncovered the dirtiest dirt and all agreed it was great social science research because the results showed what everybody knew already -- that people don't change very much no matter what you do, so you have to get them when they're young for effective bureaucratic brainwashing. The second longitudinal study was called MCS (Management Continuity Study). That seance compared today's "laid back" recent hires to the "uptight" college graduates of 25 years ago. The groups were equal on 9,998 of the 10,000 measures but significantly different on an item measuring need for competition and another

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RETIREMENT ASSESSMENT DIMENSIONS

NOTE: Ratings should range from 1 to 5, where 5 is always high and indicative of retirement readiness.

Short-term Focus
To what extent can this person undertake projects with deadlines less than eternity?

Humility
To what extent does this person avoid taking credit for his accomplishments and blowing his own horn? (e.g., avoids speaking engagements, keeps results to himself, and says he is not in when The New York Times calls for an interview)

Range of Disinterest
To what extent is this person able to approach activities in a restful manner without the expediture of excessive energy and involvement? (e.g., willingness to let others win at Parcheesi in the nursing home)

Likelihood of Staying Retired
To what extent will this person leave working people in peace once he retires? (e.g., avoid discussion of MPS and MCS over dinner with his spouse)

Ability to Nurture Others
To what extent is this person capable of giving warm, supportive, constructive advice to others? (e.g., touts the MCS participant as the ideal manager and is a sucker for bleeding hearts)

Need for Medicare
To what extent do this person's medical problems and complaints exceed the time and patience of AT&T's Medical Director?

Senior Citizen Relationships
To what extent can this person make and sustain friendships with wrinkled people?

Retirement Rhythm
To what extent does this person groove to the music preferred by the older generation? (e.g., Lawrence Welk, Guy Lombardo)

measuring need for disruption. The utility was so overwhelmed it went on funding the project year after year.

With these and other studies and programs, the candidate's work was so successful he was awarded the Paraprofessional Impractical Award from the APA (American Poltergeist Association). He also served as president of ABPP (American Board of Professional Patsies), which awards certificates for deference and egotism to suckers for only $400.

To emphasize the Short-Term Focus dimension for the candidate's research boondoggles, an old MPS participant (Loren Appelbaum), struggling against senility, and a new, young MCS participant (Mirian Graddick), an innocent lass who brought her doll, discussed what life would be like for her as a participant in one of the studies. She looked forward to going to a big country club to play games and simulations and have a few short interviews and questionnaires; he assured her that the interviews were short (he usually sent out for breakfast, lunch, and dinner) and noted he was giving up any career beyond meeting the schedules for MPS interviews, tests, and various questionnaires.

To provide a psychoanalytic interpretation of the candidate, Dr. Sara Freud (Ann Howard), a great, great granddaughter of Sigmund, reviewed various projective techniques completed by Bray and reflected on the great loves of his life. His response to incomplete sentences (**What annoys me** is *It Don't Mean a Thing If It Ain't Got That Swing;* **I feel** *In a Sentimental Mood,* etc.) were a manifestation of his Ellington Obsession, which kept him repeating Duke Ellington tunes (note Retirement Rhythm dimension). Dr. Freud observed that he began that obsession as a boy, brought it to a peak by founding New York's Duke Ellington Jazz Society and being photographed with the Duke, and continued with it today *(You Got It Bad and That Ain't Good).*

Other projectives revealed additional problems. An inkblot test brought out his Equus Complex; he saw race horses in a blot clearly resembling a female nude, apparently taking the notion of Black Beauty too literally. A TAT story he wrote (A young man in *Despair,* yearning with a *Pale Fire* in his belly for *Lolita,* etc.) was interpreted as his Nabokov Fixation, which upset Dr. Freud in light of the Russian writer's put-downs of her great, great grandpa. Bray's dreams, interpreted from riddles, showed such calamities as his Verbal Ego Syndrome (crossword puzzle addiction) and Vodka Compulsion. Clearly Dr. Freud's testimony gave Bray trouble on the Range of Disinterest dimension.

The television and radio audience was invited to participate in an exercise called Ask Dr. Dougie, moderated by Joel Moses, and designed to measure the Ability to Nurture Others dimension. A Western Electric special phone jangled with requests for advice

from eight different listeners. One caller was faced with a speech that night at Madison Square Garden to 18,000 managers, all of whom failed the assessment center. Dr. Dougie referred him to an excellent training program called "Even You Can Be Developed". A calling MPS participant confessed to having lied on everything in the study over the past 25 years along with all the other participants, but Dr. Dougie was undisturbed. He said, "There's no need to worry about that, son. We discovered that although everyone was lying they balanced each other out by lying at a 90 degree angle. The results are perfectly valid."

The Need for Medicare dimension was evaluated by self-report, as Bray appeared on an old videotape describing the importance of safety for AT&T's behavior modeling program. Sporting head bandages and his arm in a sling, he listed the learning points and admonished his target audience, "It's your responsibility as a supervisor to keep employees from killing themselves."

As a spokesperson for Bray's anticipated future Senior Citizen Relationships, Charlie Dean testified from the Park Yours Rest Home in East Senility, Indiana. Though somewhat confused (he thought Ma Bell had just won the disco), he testified that Doug should do well in the nursing home since he liked Lawrence Welk, the guy who wrote *Take the E Train.*

Another look into the future was provided by a swami (Tapas Sen), complete with spangled robe, turban, and crystal ball, who brought forth an image of the year 2050, 94 years after Dr. Bray first joined the Bell System. By this golden year he would have completed 407 deathbed interviews for MPS and 286 for MCS; developed and implemented an assessment center for selecting the President of the United States (the first one selected, Golda Machiavelli Napoleon Johnson, would make him a knight as a symbol of her gratitude); and installed an employment requirement in the Fortune 500 companies that applicants must be able to play *Sophisticated Lady* on a musical instrument of their choice.

In light of varied exercise results, the judges had difficulty agreeing on the dimension ratings and their final determination of whether or not Bray should retire. As a last resort a gigantic fortune cookie was brought out, which Doug had to crack open with a mallet. Inside one banner read, "It's About Time" and another, "So Go Already". After gifts and a few tears, he went.

Doug may have retired from AT&T but not from the field of Industrial/Organizational Psychology. The following Monday he began an active role as Chairman of the Board of Development Dimensions International (DDI), working out of their New York office. His basic research work at AT&T will continue as the responsibility of his new wife.

THE JOINT TECHNICAL STANDARDS AND THE REAL WORLD: A REPLY

By DONALD J. SCHWARTZ*

Richard S. Barrett in his paper published in the November, 1983 issue of **TIP** quoted extensively from correspondence among Professor Melvin Novick, Dr. Barrett, me, and other individuals about Dr. Barrett's concerns on the February, 1983 draft of the *Joint Technical Standards for Educational and Psychological Testing.* Although my correspondence was intended to be private, I have no problems with the publication of my letters. I am concerned, however, about the publication of excerpts from letters which are not generally available and which I believe can be misleading because the excerpts have been taken out of context.

Dr. Barrett summarizes my comments by quoting from my May 3 letter my belief that his "fantasy" testimony would be more likely to lead to questioning the expert's credibility rather than to questioning the usefulness of the *Joint Technical Standards.* This quotation, while accurately reflecting my position on this issue, was not the main point of my letter. The two paragraphs which follow this quotation state my major thesis:

"This is not to say that I do not share Dick's concern that courts may decide that the *Joint Technical Standards* are not useful in determining whether the use of a particular test is discriminatory. I believe these types of decisions may well occur if, as recommended by some, large numbers of standards are dropped from the new document for no reason other than 'they are too expensive', 'they are impractical', 'most psychologists don't follow these standards', or 'courts and government agencies will use these standards as a club against employers'. These decisions would, however, question not only the utility of the *Standards* but the relevance of the entire testing profession as well." If professional standards become so weak that validation is perceived as an employer-oriented 'safe haven' for discriminatory personnel practices, the long-feared legal decision that 'validation is no defense against adverse impact' may become a reality.

"It is for this reason that I have urged your committee to maintain an awareness of the rights of individuals who are affected by tests and to carefully consider all changes from the 1974 *Standards* in light of whether these changes are justified by new consensual positions arising from definitive empirical evidence. I continue to urge you to reject proposed revisions which are based only on cost, management or administrative convenience, popularity among industry psychologists, or possible misinterpretation by the courts."

I attempted to illustrate my concern, in my May 27 letter to Dr. Barrett, through a "fantasy" of my own about the difficulty Dr. Barrett's expert would have if the proposed Standard 1.8 were deleted from the *Joint Technical Standards.* My fantasy follows:

Q. Why is this requirement not found in the *Joint Technical Standards*

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even though it is found in the 1966 and 1974 *Standards?*

A. It was proposed in an earlier draft, but Division 14 wrote the committee and indicated a fear that the *Standards* might acquire the force of law.

Q. Why were they afraid of that possibility?

A. They pointed out in their letter and comments that the standards were too technical to be comprehended by persons for whom they were intended, that they did not explain how they are to be accomplished or provide references for the source of the various requirements, and that even tests developed by APA might not have met all (or any of) the standards.

Q. So, in other words, a requirement which had been 'on the books' for nearly 20 years, which has a sound rationale (as indicated by these references), but which was regarded as 'too technical' to be understood by practitioners was deleted from the *Joint Technical Standards* to prevent this and other courts from using it to determine whether or not discrimination has occurred?"

Dr. Barrett next quotes my May 27 letter as in agreement with him that some procedures are too expensive or too impractical to be required of employers. Here also, the quotation has a different meaning when viewed in context. My point was that, regardless of professional considerations, such a decision need not result in liability under Title VII. The entire paragraph from which the two sentences were extracted more accurately reflects my position:

"I agree that some selection procedures may, in fact, be too expensive in a given situation. A psychologist who makes this judgement may have to justify to himself or herself that the selection procedure which is to be used is supported by sufficient evidence of validity, even though the use of this procedure would result in less than optimum selection. In some cases, the psychologist may actually decide that no validated selection procedure is sufficiently cost-effective and therefore an unvalidated procedure must be used. This decision could cause some professional agony, but no liability need result from the Uniform Guidelines. The only requirement would be to use the unvalidated selection procedure in a manner that does not result in adverse impact. I believe we both agree that this is entirely possible and, in many circumstances, advantageous. The point is that this is a decision to be made in a particular situation and should be based on the particular circumstances of that situation. There is no need or advantage to change general standards so that procedures which are not supported by appropriate or sufficient validity evidence may nevertheless be considered validated."

Finally, Dr. Barrett criticizes me and his other correspondents for not addressing his questions pertaining to the selection of Fire Captains. I can speak only for myself in this regard. I believed that I had already addressed his questions. Standard 1.8 of the February 1983 draft of the *Joint Technical Standards for Educational and Psychological Testing* states: *"Where feasible, standard errors of measurement should be reported at critical score levels."* (emphasis added) Dr. Barrett presented a case in which he participated and in which he believed that computation of this statistic was not feasible. Since I did not participate in this

case and I am not familiar with all of the details, I did not feel it would be appropriate for me to comment on his conclusion. Nevertheless, I did state in my letter of May 27:

"I hasten to add, however, that testimony concerning the lack of a sufficient sample size or the irrelevance of that particular computation *for that particular situation* would be entirely appropriate and would not, in my opinion, be precluded by the proposed *Joint Technical Standards.* I am confident that no one, including the academicians in our midst, advocates doing the impossible or basing decisions on irrelevant data." (emphasis in original)

Dr. Barrett obviously does not agree that this response is sufficient. I will therefore amplify my reply by reference to another case in the "real world": *Guardians Association of the New York City Police Department, Inc. et al* v. *Civil Service Commission of the City of New York et al* (DC NY 1980) 484 FSupp 785, aff'd in part and vacated and remanded (CA-2 1980) 630 F2d 79, cert. denied (US SCt 1981) 452 U. S. 940, 101 SCt 3083. This case involved a written test which was used to select entry-level police officers for the New York City Police Department. It was administered to 36,797 applicants on June 30, 1979. The city, in addition to ranking the candidates on the basis of test scores, set a cutoff of 94 on the test. A total of 13,797 candidates passed the test at this cutoff. Since both the cutoff score and the hires (actual and expected) had an adverse impact against Black and Hispanic applicants, a class-action suit was filed claiming that use of this test was discriminatory against these groups.

The court, as typically happens in these cases, heard contradictory testimony from qualified psychologists as to whether the test was properly validated. The district court made some credibility determinations and found that the test was not properly validated. The Second Circuit Court of Appeals upheld the district court on the basis of improper use of the test for ranking and an improperly set cutoff score. The failure of the city to consider the standard error of measurement at various scores was an important consideration in both of these factors. This decision was based on Title VII law, current professional standards, and reason. Proposed Standard 1.8 of the February 1983 draft of the *Joint Technical Standards* obviously had no role in the Court's decision. Dr. Barrett's questions can appropriately be addressed to the facts of this case as well as his own case involving the selection of Fire Captains.

1. Dr. Lord described a method by which the standard error of measurement can be computed at critical score levels. The minimum number of 1,000 cases necessary for his method is exceeded not only by the total sample size of 36,797 but also by the number achieving each score between 86 and 99.

2. The use of the standard error of measurement at various scores, along with the distribution of scores, to compute the

expected number of false passes and false failures is described in the decision of the Appellate Court. Selecting a cutoff score to minimize selection and rejection errors is an acceptable professional procedure.

3. The degree of benefit of an accurate and supportable determination of false passes and false failures can be inferred from the decision of the Appellate Court:

"A cutoff score, properly selected, is not permissible simply because there will always be some error of measurement associated with it. But when an exam produces disparate racial results, a cutoff score requires adequate justification and cannot be used at a point where its unreliability has such an extensive impact as occurred in this case." 630 F2d 79, at 106.

This decision led to an interim court-ordered hiring quota, back pay, and constructive seniority to affected class members, and subsequent replacement of the test with another procedure that was used in a manner deemed appropriate by the court--exactly the type of protection to which Dr. Appelbaum referred.

In conclusion, I would like to pose some questions for Dr. Barrett and other interested readers. These questions are based on the assumptions that both the selection of entry-level New York City police officers and the selection of Dr. Barrett's are "real world" situations and that existing professional standards as well as proposed Standard 1.8 apply to both situations. My questions are as follows:

1. Did the Court of Appeals correctly decide this issue in the *Guardians* case?

2. Should the candidates for New York City entry-level police positions have been denied the protections afforded them by Standards D2.42 of the 1966 *Standards*, F2.3.2 of the 1974 *Standards*, and proposed Standard 1.8 of the February 1983 draft of the *Joint Technical Standards* simply because the necessary computations may not have been feasible in the situation involving the selection of Dr. Barrett's fire captains?

3. What weight will the courts, who have the ultimate responsibility of protecting the rights of plaintiffs as well as employers, give to future professional standards if existing standards which provide protection for individuals whose lives are affected by test scores are deleted from these future standards because they are considered onerous and burdensome to test developers or employers, or because they are considered impractical in some situations?

*Note. *This paper was submitted by the author in his private capacity. No official support or endorsement by the U.S. Equal Employment Opportunity Commission or any other agency of the U.S. Government is intended or should be inferred.*

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Fair Employment Developments

James C. Sharf

DEPARTMENT OF JUSTICE ASKS SUPREME COURT TO REVIEW CONSTITUTIONALITY OF VOLUNTARILY ADOPTED RACIAL QUOTA IN DETROIT POLICE PROMOTION CASE

In early December, the Reagan Administration asked the Supreme Court to review the constitutionality of the affirmative action plan adopted by the Detroit Police Department in 1974. The affirmative action plan was adopted voluntarily to overcome "underutilization", where 5% of the Department's sergeants were black in a city that was over 50% black and where there had been historical exclusion of blacks from the management ranks.

Following the 1967 Detroit riots, the Mayor had appointed a committee of industrial psychologists and personnel officials known as the "Vickery Committee" to review existing selection standards and to recommend changes. The Vickery Committee found that the Department's total employment was less than 5% black and that the three-hour general ability test used for entry-level positions was rejecting three times as many blacks as whites. Further, there was no validity evidence for the exam. In spite of misgivings, the Committee recommended adoption of a well known 12-minute general ability test as an interim measure with the hope of at least reducing the adverse effects of the entry-level examining step. Between 1968 and 1970, the hiring rate of blacks increased to 26%, and the Department was 11% black by the end of 1970.

In 1971, the Vickery Committee recommended a police selection battery developed at the University of Chicago. Use of the "Chicago" battery reduced but did not eliminate adverse impact and by the end of 1973, the selection rate for blacks had been increased to about 30%. In 1973, differential prediction studies had been completed for the "Chicago" battery and separate cut-off scores by race were instituted along with other changes (such as a city residency requirement), all of which resulted in the hiring of equal numbers of whites and blacks into entry-level positions by 1974. Between 1967 and 1974, black representation in the Department had increased from less than

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5% to over 17%. Black representation continued to lag, however, at the supervisory ranks and above.

Promotions from entry-level positions required passing IQ tests until 1969, when an effort was made to develop content valid instruments for screening candidates for the sergeant's position. A police lieutenant with neither a measurement nor psychology background was assigned the job of developing the new sergeant's exam. In the first administrative use of this new content valid sergeants' exam in 1970, political pressure from the detective's union resulted in the promotion of *all* detectives who took the exam. Efforts were subsequently ordered by a new police chief toward developing multiple-choice questions from an established bibliography of required police readings. Whites' pass rates, however, were consistently above those of blacks.

In May 1974, promotions to sergeants' positions were made in rank order off the eligibility list, resulting in whites getting 29 out of the 30 promotions. At that point, the Chief of Police sought and received permission from the Board of Police Commissioners to undertake an affirmative action program entailing the promotion of roughly equal numbers of whites and blacks. Between 1974 and 1977, 159 whites and 152 blacks were promoted to sergeant. At this point, white police officers challenged implementation of the affirmative action plan, which required explicit use of race as one of the selection criteria with equal numbers promoted from separate white and black promotion lists.

Enforcement agencies had long argued that race-conscious decision-making was constitutional, even if it meant favoring individuals who had never suffered from the discrimination being remedied. Indeed, lower courts had previously upheld the constitutionality of the Detroit Police Department's affirmative, race-conscious preferential treatment, which was to remain in effect until the 1990s, when it was estimated that half of the police lieutenants would be black.

In seeking to challenge the Detroit Police lower court precedents on constitutional grounds, the Reagan Administration has again expressed its disfavor with affirmative action programs using race as a selection criterion to favor non-victims of admitted prior discriminatory practices. The Supreme Court most likely will not announce until early '84 whether or not they will hear this case pending a decision on the Memphis Fire Department case *(TIP,* 1983,*20* (4), 61-63).

The following excerpts are from the Department of Justice *amicus* brief seeking the Supreme Court's review of the lower court precedents.

Department of Justice *Amicus* Brief: Interest of the United States

"The Attorney General has primary responsibility for the enforcement of Title VII's prohibition against various forms of discrimination, including racial discrimination, in the area of public employment. This Court's resolution of the broad issue presented in this case, viz., the validity of a racial quota for promotions voluntarily adopted by a municipal police department in response to past hiring and promotion discrimination by the department, will have a significant effect on these responsibilities. The Court's resolution of the constitutional questions presented also could more generally affect the government's civil rights enforcement responsibilities. Indeed, the Attorney General previously certified this case to be of general public importance and moved unsuccessfully to intervene in the case pursuant to...the Civil Rights Act of 1964..."

Statement

1) "One of the responsibilities of the Detroit Board of Police Commissioners (Board) is to decide how and on what basis all promotions, including those from sergeant to lieutenant, are made. The City has long used a merit selection system for promotions; prior to 1974, all candidates for promotion were ranked on a single list according to numerical ratings based on various factors, including individual scores on a written examination. (Other criteria that contributed to a candidate's overall score were length of service, service ratings by superiors, college education, veterans' preference and an oral interview.) Promotions were made in rank order from the list of candidates. Pursuant to this system the percentage of black lieutenants in 1967 was 1.3%. After the well-known riots in Detroit in 1967, the Department undertook a vigorous recruiting effort to increase the number of blacks throughout the Department. By 1974, the percentage of black lieutenants had risen to 4.8%."

"In 1974, the Board, after conducting two days of public hearings, adopted a race-conscious 'affirmative action plan' for promotions in order to remedy the Department's prior discriminatory employment practices and to meet what the Board perceived to be an 'operational need' for more black officers. The plan, as it related to promotions from the rank of sergeant to lieutenant, was as follows:

"The affirmative action plan does not alter the basic criteria for determining promotion eligibility, nor does it alter the minimum requirements necessary for consideration for the rank of lieutenant. The plan mandates that two separate lists for promotion be compiled, one for black and the other for white officers. The rankings on those lists are then made in accordance with the same numerical rating system previously employed. The promotions are made alternately from each list so that white and black officers are promoted in equal numbers. This 50/50 plan is to remain in effect until fifty percent of the lieutenant corps is black, an event estimated to occur in 1990."

2) "In November 1975, petitioners, five white police sergeants who were passed over for promotions on the 1975 promotion eligibility lists and the Detroit Lieutenants and Sergeants Association, the union for the officers, instituted this case as a class action against...the City of Detroit... Petitioners alleged that the one-to-one racial quota for promotions to lieutenant violated Title VII...and the Fourteenth Amendment."

"After an extensive trial, the district court entered judgment for the City and its officials. The court first found that the Department had been guilty of past hiring and promotion discrimination against blacks; there had been intentional

discrimination between 1943 and 1967 and after 1967 the City's promotional system, primarily because of its continued use of a non-job related examination, had a disparate impact on blacks. Against this background the district court considered petitioners' Title VII claim."

"Finding that the Board's one-to-one promotion quota satisfied all the requirements for a permissible affirmative action plan outlined by this Court in *Weber*, the district court held that the promotion quota did not violate Title VII. Indeed, noting the City's use of unvalidated and discriminatory hiring and promotion tests until 1974, the district court held that '*Weber* aside, the affirmative action plan is justifiable to remedy clear violations of Title VII which continued into 1972 and 1973'."

"The district court also rejected petitioners' constitutional challenge. The court determined that the promotion quota was a 'reasonable' effort to remedy the present effects of the City's past intentional employment discrimination, which did not cease until about 1967, when the minority recruitment program was instituted by the Department."

"In a separate opinion, the district court incorporated the Board's affirmative action plan, including the promotion quota for lieutenants, into a final and mandatory judicial decree. Likening the voluntary plan to a consent decree, the court determined that the plan should be incorporated into a judicial decree (1) to insulate the plan from further attacks and (2) to ensure that the City maintained its affirmative action efforts, which the court held were constitutionally required."

3) "The court of appeals, with three separate opinions, affirmed. Noting that 'what is valid under (the Fourteenth Amendment) will certainly pass muster under Title VII', the opinion of the court focused solely on the constitutionality of the Board's promotion quota. The court reasoned that its constitutional analysis was governed by the Sixth Circuit's earlier decision...which upheld a one-to-one racial quota for promoting Detroit police patrolmen to the rank of sergeant. Adopting the standard of judicial review outlined in... *Bakke*, the court...determined that the substantial governmental interest in redressing the effects of past racial discrimination justifies race-conscious remedial measures so long as they are 'reasonable.' The reasonableness inquiry, according to the court, requires an examination into whether any discrete group or individual is stigmatized by the racial classification and whether the racial classification is 'reasonable in light of (the program's remedial) objectives'."

"Applying this standard to this case, the court of appeals concluded that the evidence amply supported the Board's and the district court's findings of past intentional employment discrimination against blacks in the Detroit Police Department. Furthermore, the court determined that the Board's promotion quota for lieutenants did not unduly stigmatize anyone and passed the 'test of reasonableness'. The court of appeals further found that to the extent the one-to-one quota is excessive as a remedy for past discrimination in employment, it can be justified as redress 'to the black population (of Detroit) as a whole' for a prior 'pattern of unconstitutional deprivation of the rights of a specific, identifiable segment of the Detroit population by white members of the segregated police department.' Finally, the court affirmed the district court's entry of the Board's affirmative action plan as a mandatory judicial decree."

4) "On April 29, 1983, the United States sought leave to intervene as a party appellant and to file a petition for rehearing in which the United States argued that the Board's adoption of a one-to-one promotion quota violated the equal protection guaranty of the Fourteenth Amendment and that the incorporation of the Board's quota into a court order was inconsistent with the court's authority under Section 706(g) of Title VII. The motion to intervene was denied...The court also denied petitioner's petition for rehearing, but in so doing, the court vacated

that part of the district court's final order incorporating the quota into a judicial decree. The court also remanded the case to the district court for further consideration of the 50% quota in light of 1980 census data showing that Detroit now has a 63% black population."

Discussion

"The sensitiveness of the issues presented in this case is readily apparent. The City of Detroit has unilaterally modified an otherwise apparently reasonable merit promotion system that had been bargained for collectively and has declared that fully half of all individuals promoted should be selected not solely on the basis of their measured ability but rather pursuant to an explicit racial criterion. We do not believe that this action can be sustained under the relevant statutes; nor do we believe that the City's decision here can be squared with the Constitution - notwithstanding the fact that the City's action was expressly made as a response to undeniable past discrimination against blacks that had created a police force that was largely unresponsive to the concerns of a substantial portion of the City's population."

"The courts below in grappling with this case labored under a serious handicap; this Court has heretofore, in its first three 'reverse discrimination' decisions, not agreed on broad principles to guide the lower courts in resolving such cases. Moreover, none of the prior cases before this Court presented a setting comparable to this one and thus the specific reasoning and decisions in those cases did little to assist the courts below in reaching their results. For example, unlike the situation in *Bakke*, the plan here was adopted to remedy actual discrimination by the institution involved; but unlike the 'Harvard Plan' discussed by Justice Powell in *Bakke*, the plan here gave an absolute preference based on race, instead of using race solely as one factor in choosing which candidates to promote. Similarly, unlike *Weber*, this case involves a public rather than a private employer and the plan it adopted allegedly contravenes a collectively bargained for merit promotion system. Finally, unlike *Fullilove*, this case concerns a quota with a potential life span exceeding ten years that was adopted in the context of public employment and by a municipality rather than by Congress. Whether all or some of these factors should affect the proper disposition of this case is a matter that should be resolved by this Court. Moreover, this case comes before this Court after a full trial and final judgment, and with no justiciability issues that might cloud its final disposition. In sum, this case presents an appropriate occasion for the Court to attempt to reach some consensus on the proper approach to cases involving the adoption by the government of quotas for employment. There is an obvious public interest and importance in providing guidance for governmental entities which, like Detroit, may have engaged in past discrimination, but would prefer to avoid litigation by adopting voluntarily their own remedial plan."

"As is evident from our participation in the court of appeals, the United States is of the view that the judgment below was erroneous. We are concerned about the adoption of race-conscious, non-victim-specific remedies, particularly by any institution other than Congress. We have profound doubts whether the Constitution permits governments to adopt remedies involving racial quotas to benefit persons who are not themselves the victims of discrimination - at least in the absence of a clear statement by Congress itself, acting pursuant to its broad remedial authority under the Thirteenth and Fourteenth Amendments, requiring the use of such remedies. We also have serious doubts about the validity of the unilateral adoption of a quota in place of a merit system in apparent disregard of the approval Congress expressed for merit systems in Section 703(h) of Title VII; and we are troubled by the City's intention to retain its quota until the percentage of black lieutenants equals the percentage of blacks in Detroit, even though that

may be an artificial goal that needlessly disadvantages innocent non-black persons and could take two decades to achieve. Should the Court grant the petition, the United States would attempt to address these issues fully, in light of prior decisions and government practice and available indicia of congressional intent. In our view, this case provides an excellent vehicle for addressing important and recurring issues that so far have evaded clear resolution by this Court and the lower courts, and there is a pressing public need for whatever clarification can be achieved. Accordingly, we respectfully submit that the petition for a writ of certiorari should be granted."
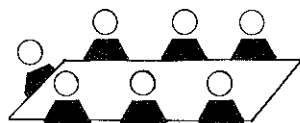
Committees

Midyear Conference   <> Irwin L. Goldstein

PLANNING BEGINS FOR SPRING 1986
MID-YEAR CONVENTION

Plans are beginning to form for the first mid-year convention of the Society of Industrial and Organizational Psychology. On the advice of convention bureaus and other scientific societies, we have decided that Spring 1986 is our first target but that we must also immediately select a site for the Spring 1987 meeting. Based upon information we have provided about our plans, the convention bureaus for the cities of Chicago, New York, and Washington are preparing materials to enable hotels to bid on our meeting. Sites and dates will be announced in the next issue of **TIP.**

Other plans include the following:

1. A steering committee has been appointed to make arrangements for the first two or three meetings. Members of the committee include **Irv Goldstein** as chair, **Ron Johnson** in charge of registration, **Rich Klimoski** heading the program committee, and **Stan Silverman** running the workshop committee. **Milt Hakel,** as president of Division 14, and **Ben Schneider**, as incoming president, also serve on the committee. Local arrangement committees will be appointed to work with each of the hotels as the cities are chosen.

2. The meetings are tentatively planned to begin on Thursday afternoon and conclude on Saturday afternoon. The plans for Thursday afternoon are for workshops with a special get-together social event for Thursday evening. We are also hoping to have optional tours of relevant I/O facilities available on Thursday afternoon. Programs for Friday and Saturday are being worked on with an emphasis on events that will permit communication among members.

3. In addition to the program, we are planning to have a hospitality room which will be open for the entire meeting. Also, we expect to have two conference rooms continually available for committee meetings, etc.

As our planning proceeds, we will announce our activities in **TIP.** We look forward to receiving your suggestions. Please send them to **Irv Goldstein, Department of Psychology, University of Maryland, College Park, Maryland, 20742.**

Scientific Affairs   <> Walter Borman

Last year was an extremely active year for the Scientific Affairs Committee under **Ray Katzell's** excellent leadership. In trying to keep up the momentum, this year's Committee is initiating some activity I want to tell you about. We have decided to operate on a subcommittee system, with three of these groups currently operating. **Bob Billings** is responsible for awards, including submissions for the Ghiselli and Wallace competitions. We have increased the size of the review panel for these awards to provide a very thorough reading of materials sent to us.

A second group, headed up by **Walt Tornow,** is looking into research priorities for I/O psychologists, and how we might become more in tune with the personnel and organizational research needs of industry and government. We are planning some survey work to assess the match up between what is needed and what's being done in "real-life" organizations.

Finally, **Terry Dickinson** and his subcommittee will explore issues in productivity, with an eye toward determining how I/O psychologists might make contributions in researching this important area. Initial efforts will involve reviewing previous and ongoing work on productivity.

In these early stages of subcommittee work, we would very much appreciate your advice about how to proceed, references that might guide us, or any comments you may have to help us along. Please write or call one of us.

1983-84 Committee Members

Society For Industrial And Organizational Psychology

Albert S. Glickman
Irwin L. Goldstein
Leonard D. Goodstein
Donald L. Grant
Robert M. Guion
Milton D. Hakel
Raymond Hedberg
Edwin P. Hollander
Ann Howard
William C. Howell
Charles L. Hulin
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Susan Jackson
Mildred E. Katzell
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Frank L. Schmidt
Benjamin Schneider
Wayne Sorenson
Mary L. Tenopyr
Paul W. Thayer
Jan P. Wijting
Hilda Wing
William Wooten
Virginia Zachert
Sheldon Zedeck

## PRINCIPLES FOR THE VALIDATION AND USE OF PERSONNEL SELECTION PROCEDURES

SECOND EDITION

Division 14's Executive Committee has adopted the *Principles for the Validation and Use of Personnel Selection Procedures (second edition)* as the official statement of the Division concerning procedures for validation research and personnel selection. Bill Owens and Mary Tenopyr were co-chairs responsible for this edition; an advisory panel of 24 experts participated in the revising and updating of the 1975 Principles. The purpose of this new edition is to specify principles of good practice in the choice, development, and evaluation of personnel selection procedures.

Copies can be obtained from the Secretary-Treasurer (address on back cover). The price schedule is: $4.00 each for 1-9 copies, $2.50 each for 10-49 copies, and $2.00 each for 50 copies and up. Make checks out to the **Society for I/O Psychology.**

Meetings
Past and Future
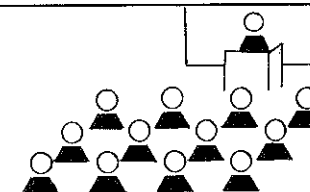
Fifth Annual I/O & O.B. Graduate Student Convention, April 27-29, 1984

The psychology graduate students of Old Dominion University, in conjuction with those in the O.B. program at the University of North Carolina and the I/O program at North Carolina State University, will host the fifth annual Industrial/Organizational Psychology and Organizational Behavior Graduate Student Convention this year at the Sheraton Beach Inn and Conference Center in Virginia Beach, Virginia. The convention is designed to provide graduate students in I/O psychology, organizational behavior, business, management, and related fields with a forum in which to exchange ideas and information in a supportive environment.

Guest speakers, workshops, and paper presentations are featured at the convention. This year's presenters will include **Clayton P. Alderfer** (Yale University), **Marvin D. Dunnette** (University of Minnesota), **Edwin A. Fleishman** (Advanced Resources Research Organization), **Irwin L. Goldstein** (University of Maryland), **Michael J. Kavanagh** (SUNY-Albany), **Paul W. Thayer** (N.C. State), **Ann Howard** (AT&T), and **Albert S. Glickman** (Old Dominion University).

For further information contact **I/O and O.B. Convention Steering Committee, Department of Psychology, Old Dominion University, Norfolk, VA 23508.**

## International Congress on the Assessment Center Method, April 30-May 2, 1984

The twelfth annual International Congress on the Assessment Center Method, a conference organized by a voluntary group of assessment center researchers and practitioners, will be held in Chicago, Illinois. Activities include presentations of recent research, various speakers, and a sharing of experiences. A feature this year will be retrospectives from two new retirees from

the industrial world, **Doug Bray** and **Jon Bentz.** Another highlight will be a discussion of changing values in the work force and implications for management practices by a group of distinguished presenters.

For further information contact **Barbara Mazur, Development Dimensions International, P. O. Box 13379, Pittsburgh, PA 15243, Phone 412 257-0600.**

IPMA Assessment Council
May 6-10, 1984

The eighth annual conference of the International Personnel Management Association Assessment Council will be held at the Edgewater Inn, Seattle, Washington. For more information contact **Dr. Sandra Shoun, International Personnel Management Association, 1850 K Street, N. W., Washington, DC 20006, Phone 202 833-5860.**

CALLS
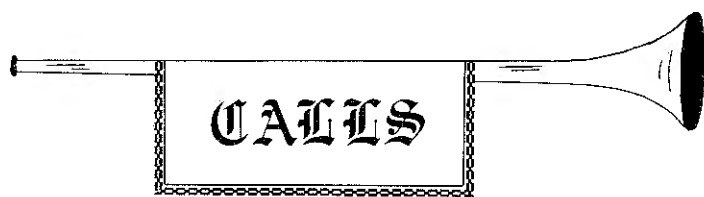
Editor for Contemporary Psychology

The search is underway for a successor to Donald Foss, whose term as editor of *Contemporary Psychology* ends in 1985. The new editor should begin receiving books for review early in 1985.

The editorial search committee consists of Albert Bandura, John Conger, Michael Posner, and Anne D. Pick. The Publications and Communications Board of APA will need to make a decision in late Spring of 1984. Send any suggestions for a new editor to **Anne D. Pick, Professor and Search Committee Chair, University of Minnesota, Institute of Child Development, 51 East River Rd., Minneapolis, Minn. 55455.**

APA Journal Donation Program

APA seeks donors and recipients for the journal donation clearinghouse managed by the International Affairs Office at APA. The program is designed primarily to enable individual psychologists to donate collections of psychological journals to libraries or other groups that can use them.

Prospective donors should take an inventory of old journals, noting years and volumes. Prospective recipients, including libraries' and other groups in the United States and abroad, should give a description of journal needs, including year and volume. Quarterly lists of offerings will be sent to prospective recipients, who must make their own arrangements with donors. APA does not cover shipment charges, although foreign shipments may be subsidized in exceptional cases. Contact **Mr. Steven Kennedy, APA International Affairs Office, 1200 17th Street, N. W., Washington, D.C. 20036, U.S.A.**

## Organizational Behavior Publications Awards

The Organizational Behavior Division of the Academy of Management announces its annual call for nominations for its "New Concept Award" and "Showcase Study Award". Both awards are for publications appearing during 1983 in recognized outlets that are generally available to Society members. Recipients of the award need not belong to the Academy.

The New Concept Award is given for the most significant contribution to the advancement of theory and/or method in organizational behavior research. The Showcase Study Award is presented to the best empirically-based research publication (involving conceptualization, operationalization, and data analysis) on an issue of importance in organizational behavior. Award winners will be announced at the August 1984 national Academy meeting in Boston during the OB Division's business meeting and will be presented a certificate of recognition.

An Academy of Management member may nominate one publication per award; self-nominations will not be accepted. Nominations should be by letter and include a rationale justifying receipt of the award and a full bibliographic citation of the nominated work. Send nominations by April 30, 1984 to **Ray Aldag, Graduate School of Business, University of Wisconsin-Madison, 1155 Observatory Drive, Madison, Wisconsin 53706.**

Positions Available

Ed Adams
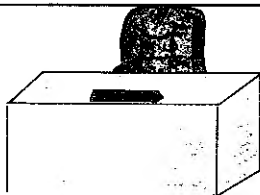
1) Consulting Psychologist. Rohrer, Hibler & Replogle, Inc. anticipates openings in its California offices in the near future. Applications are sought from highly qualified psychologists interested in careers consulting with management. These full-time positions require the doctorate and California licensure/eligibility. The work includes executive assessment, organizational analysis, and review of management strategy. Applicants must be able to establish rapport quickly with the business community. Prior management consulting, organizational consulting, management or administrative experience is highly desirable. Income potential is excellent, based upon performance. Contact: **Dr. John Blanche, Manager, 626 Wilshire Blvd., Suite 800, Los Angeles, CA 90017,** or **Dr. Victor Howard, Manager, 1601 Old Bayshore Highway, Burlingame, CA 94010.**

2) Industrial/Organizational Psychologist. The Department of Psychology at Virginia Polytechnic Institute and State University invites applications for appointment as a Full or Associate Professor in Industrial/Organizational Psychology beginning September, 1984. The Department of Psychology is committed to scholarship and research excellence and is looking for a candidate whose record reflects those commitments, regardless of content area. Salary will be competitive and commensurate with experience. The Department of Psychology has 28 full-time positions and approximately 75 graduate students. Ph.D. programs include concentrations in Industrial and Organizational Psychology. Applicants should submit a letter of application, academic vita, and the names of three persons who will write letters of reference to: **Philip Bobko, Chairperson, I/O Search Committee, Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.** To receive full consideration, applications should be received by February 1, 1984. Virginia Tech is an equal opportunity/affirmative action employer.

3) Measurement Psychologist. Baruch College/The City University of New York seeks an Assistant Professor for a tenure-track position beginning September 1, 1984. Applicants must have a strong quantitative/measurement/psychometrics background as well as substantive research and teaching interests in one or more of the following areas: industrial/organizational psychology, test development, group processes, career development - vocational psychology, applied experimental/social psychology, and/or behavioral decision-making. Candidates must be committed to the development of a productive research career and to excellence in teaching. Responsibilities will include teaching both undergraduate and graduate level courses, advising students, and sponsoring theses. The department offers several undergraduate majors, and the MBA, MS and Ph.D. in I/O Psychology. Applications will be accepted until the position is filled. Submit a complete vita, copies of recent research reports or publications, and three letters of recommendation to: **Psychology Department Search Committee, Baruch College, Box 512, 17 Lexington Avenue, New York, NY 10010.** The City University of New York is an equal opportunity/affirmative action employer.

4) Industrial/Organizational Psychologist. The Psychology Department of the University of Michigan-Flint invites applications for a tenure track position at the Assistant Professor level to begin Fall 1984. Responsibilities include the teaching of three undergraduate classes each semester. These will include supervision of student internship placements and research in organizational settings and may include teaching general psychology courses as well. The development of an Industrial/Organizational component for application-oriented programs is a priority. The position requires a Ph.D. Salary is competitive with liberal fringe benefits. Submit vita and three letters of reference by February 15, 1984 to: **Ronald E. Silverman, Ph.D., Department of Psychology, University of Michigan-Flint, Flint, Michigan 48502-2186.** Equal Opportunity, Affirmative Action Employer.

5) Assistant Professor. Saint Mary's University, Department of Psychology. The Department is seeking applications for a newly-created tenure-track position. The Department offers M.S. programs in Industrial/Organizational and Clinical Psychology. Candidates should have a strong commitment to the development of an active research program. Responsibilities will include teaching at the undergraduate and graduate levels and research supervision. In particular, candidates should be capable of making a teaching contribution in some of the following areas: Learning, General Experimental and Industrial/Organizational. The 1983-84 salary floor for the Assistant Professor rank is $26,590. Starting date for position is September, 1984. The Nova Scotia Psychologist's Act requires all Psychologists to be registered and defines teaching and research as psychological services; therefore, preference will be given to those candidates who indicate their intention of registering with the Nova Scotia Board of Examiners in Psychology. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Applicants should send a letter of application stating their teaching, research and professional interests, a vita, and the names of three referees to: **Dr. Victor M. Catano, Chairperson, Department of Psychology, Saint Mary's University, Halifax, Nova Scotia B3H 3C3.**

6) Research Analyst. The San Francisco Area Research Facility of a nationwide corporation has an opening for a Staff Analyst in the Personnel Research Department. The individual will be heavily involved in statistical analysis regarding personnel programs and policies. Qualified candidates should have a master's in an appropriate field of study, and a minimum of two years personnel research or marketing experience in a business environment. Working experience in SAS. PL/1 also would be helpful. Knowledge and application of research methodology, statistics and experimental design are essential. Good communication skills are required. Interested applicants should send their resume and salary requirements to: **T. A. Oleno, 321 Middlefield Road, Menlo Park, CA 94025.** An Equal Opportunity Employer.

7) Assistant Professor. A tenure-track position in the Psychology Department at Suffolk University starting September, 1984. A Ph.D. is required prior to starting date to teach courses in Industrial/Organizational and second area in psychology (Developmental preferred; other areas considered). Some consulting or work experience in business is preferred. Responsibilities will include teaching four undergraduate courses each semester and developing I/O component of a major. Salary is commensurate with experience. Send letter of application, vita, transcripts, and three letters of reference to: **Margaret A. Lloyd, Ph.D., Chair, Psychology Department, Suffolk University, Beacon Hill, Boston, MA 02114.** Deadline: February 10, 1984. An Affirmative Action/Equal Opportunity Employer.

8) Faculty Positions. The Department of Industrial Relations/Organizational Behavior at Temple University is currently seeking to fill three (3) tenure-track positions for the Fall of 1984. Candidates should be qualified in one of the three following broad areas: 1) Human Resources with an emphasis on wage/salary concepts and administration, 2) Organizational Behavior focusing on micro-organizational topics such as group processes, motivation and leadership and, 3) Organizational Behavior stressing organizational development and change. Qualified candidates should send a resume and three letters of recommendation immediately to: **Richard D. Leone, Chairman, Recruiting Committee, Industrial**

Relations/Organizational Behavior Department, Temple University, Philadelphia, Pennsylvania 19122.

9) Director Business Programs in Test Development. The American College Testing Program (ACT) in Iowa City, Iowa has an immediate opening for qualified person to head 17-member department responsible for designing and implementing testing programs for clients in business professions. Work involves employee supervision and training, budget monitoring, quality control, applied measurement research, test and technical materials preparation, proposal writing, client consultation. Qualifications include Ph.D. in educational measurement, statistics, and research. Three to five years test development experience. Annual salary in 30's, plus exceptional benefit program. Submit letter of application, resume, three letters of recommendation to: **ACT Personnel Services, P.O. Box 168, Iowa City, IA 52243.** ACT is an Equal Opportunity/Affirmative Action Employer.

10) Industrial Psychologist. The Washington State Patrol has an opening for a qualified individual in the Personnel Section located in Olympia, Washington, State Patrol Headquarters. This position offers excellent benefits and job security. Salary is in the $28,000 to $38,000 range. Interested applicants should have a master's or Ph.D. degree, psychometric experience, and three to five years personnel-related experience. Primary responsibilities include test construction and validation, assessment centers, salary surveys, job descriptions and specifications, evaluation and performance appraisal systems, and management development analysis. Resumes should be sent by February 15,1984 to: **Ms. Marney S. Reed, Personnel Manager, Washington State Patrol, General Administration Building, AX-12, Olympia, Washington 98504.** The Washington State Patrol is a progressive law enforcement agency, with full police powers throughout the state. Employees number approximately 1350 persons of various classifications. The State Patrol actively pursues a policy of Equal Employment, with women and minorities encouraged to apply.

11) Director of Psychological Measurement. The Psychological Corporation, the leading publisher of educational and psychological testing instruments, is a subsidiary of Harcourt Brace Jovanovich, Inc., a diversified Fortune 500 company with interests in publishing, communications and other services. The Psychological Corporation is seeking a very senior measurement professional as Director, Psychological Measurement. This executive will manage development and construction of tests in three product lines: clinical assessment instruments; credentialing examinations; and tests for business and government. The Director, Psychological Measurement, will be responsible for technical content, product quality and, ultimately, marketplace leadership in these product lines. This executive will manage a staff of professionals, work closely with outside experts and become a member of the company's policy committee. The successful candidate will have: A Ph.D. in psychological measurement or a highly related area from a respected institution; a solid psychometric background in terms of knowledge of basic techniques and current trends; actual test development experience desirable; knowledge of clinical instruments; knowledge of and/or experience in industrial and organizational psychology including tests and other instruments used in industry and current trends in organizational dynamics; the management skills to recruit, develop, and motivate a highly professional staff; and both personal and professional presence, including the ability to present programs to senior officers of large corporations. The position will be located at corporate headquarters in a suburb of Cleveland, Ohio. There will be an attractive salary, fringe benefits and participation in the executive incentive compensation program. We have asked one of the world's leading executive search firms to act as intermediary and present to us the very few top candidates. Please direct your response to them, including complete resume and current compensation, at: **Box MK 1038, 71 Fifth Ave., Fifth floor, New York, N.Y. 10003.**

12) Senior Research Consultant. The Organizational Research Division of Opinion Research Corporation is seeking a Senior Human Resource Research Specialist to develop and market new research programs in the areas of benefits, productivity, communications, and employee relations. The candidate should possess an advanced degree in Organizational Psychology, Organizational Behavior, or a similar field and have at least five years of solid corporate research consulting experience. Area of expertise is less important than ability to generate and market a solid research program. The position requires excellent interpersonal skills, supervisory capability, and moderate travel. Send resume to: **Gail Ryan, Opinion Research Corporation, Box 183, North Harrison Street, Princeton, NJ 08540.**

TIP

invites you to submit articles and news items of interest to our readers. Send submissions to the Editor, or present your ideas to any Editorial Board member.

THE DEADLINE FOR THE MAY ISSUE OF **TIP** is
MARCH 15, 1984

ADVERTISE IN TIP

The Industrial-Organizational Psychologist is the official newsletter of the Society for Industrial and Organizational Psychology, Inc., Division 14 of the American Psychological Association. **TIP** is distributed four times a year to the more than 2300 Society members. Membership includes academicians and professional-practitioners in the field. In addition, **TIP** is distributed to foreign affiliates, graduate students, leaders of the American Psychological Association, and individual and institutional subscribers. Current circulation is 3200 copies per issue.

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PUBLISHING INFORMATION

SCHEDULE

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